

physical education
FOR HIGH SCHOOL STUDENTS

education

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A BOOK OF SPORTS, ATHLETICS
AND RECREATIONAL ACTIVITIES
FOR TEEN-AGE BOYS AND GIRLS



AMERICAN ASSOCIATION FOR HEALTH
PHYSICAL EDUCATION AND RECREATION

physical



Harold D. Schwab, Silver Award National High School Photographer Awards

This prize winning picture of a lay up shot (see p. 78) captures one of the great moments of a great game

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AMERICAN ASSOCIATION FOR HEALTH
PHYSICAL EDUCATION AND RECREATION

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Foreword

THIS UNIQUE BOOK in the field of physical education has been written especially for high school boys and girls. An undertaking of this scope drew upon all the resources of a great professional organization. It was envisioned and carried to completion through the cooperative efforts of more than one hundred leaders in education. Authors and committee members made their contribution without compensation, as a professional service, thus making possible the production of the book at nominal cost.

This book gives boys and girls basic information on a well-rounded program of physical education. Through reading it they will be encouraged to learn and enjoy a variety of sports and recreational activities. Each chapter includes not only the rules and skills of an activity, but also the cultural background, sportsmanship, health and safety requirements, and selection and care of equipment.

Physical Education for High School Students is good reading in an area of tremendous interest to boys and girls. It has been designed to serve not only as a textbook in physical education, but also as a supplementary reader.

A teachers guide to use with this book has been prepared. Rule changes and revisions have been incorporated in successive printings to keep the book up to date.

Physical education has long been recognized as a necessary component in a program of education. The production of this book for high school students is evidence of the concern of educators for this area in the total development of the youth of our nation.

It is our earnest hope that school administrators, school board members, and parents will join with the physical education profession in providing opportunity for every boy and girl to read *Physical Education for High School Students*.

CARL A. TROESTER, JR., Executive Secretary
American Association for Health, Physical Education,
and Recreation

CONTRIBUTORS

Anita Aldrich, Kansas City Public Schools
Jackson M. Anderson, Assistant Secretary and Consultant in Recreation and Outdoor Education, AAHPER
Helen M. Barton, University of Illinois, Navy Pier, Chicago
Corinne T. Bize, Towson State Teachers College
Richard L. Brown, Assistant Director, Water Safety Service, American National Red Cross
Laurie E. Campbell, University of Michigan
Dorothea Coleman, State College of Washington
Quinn Constantz, Western Carolina Teachers College
Elizabeth Cooper, Calvin Coolidge High School, Washington, D. C.
Louella Daetweiler, Compton College
Howard G. Danford, Florida State University
Dorothy Ruth Davies, Southern Illinois University
Dorothy Deach, University of Maryland
Ray O. Duncan, West Virginia University
General Merritt A. Edson, Executive Director, National Rifle Association
J. R. Le Fevre, Arlington County Public Schools, Virginia
David A. Field, Arnold College Division, University of Bridgeport
Harriet Fitchpatrick, Board of Education, Cleveland, Ohio
Charles E. Forsythe, Department of Public Instruction, Michigan
Grace Fox, Florida State University
Phillip Fox, Wilson Teachers College
Frank D. Gardner, Wellington C. Mepham High School, Bellmore, New York
George W. Harvey, Pennsylvania State University
George L. Henderson, Toluca High School, Toluca, Illinois
Marjorie Hillas, Teachers College, Columbia University
Leon Horowitz, Southern High School, Baltimore, Maryland
Norma Leavitt, University of Florida
Alleene Lockhart, University of Southern California
Lloyd H. Lux, Bates College
Arthur J. Lynch, Bronxville High School, Bronxville, New York
Eleanor Metheny, University of Southern California
Elmer D. Mitchell, University of Michigan
Laurence E. Morehouse, University of California at Los Angeles
Virginia Lindblad Nance, University of Southern California
Esther E. Peave, University of Michigan
Dorothy Perry, University of Georgia
Milton Raymer, Executive Secretary, American Junior Bowling Congress
John H. Shaw, Syracuse University
Lloyd Shaw, President, Recordings, Inc.
Betty Spears, Brooklyn College
Marion M. Tietz, U. S. Women's Lacrosse Association
Marlys Waller, University of Washington
Glenn Warner, United States Naval Academy

ART AND DESIGN

Cover: Ken Frye

Line drawings: Thérèse Rittue Brown

Typography: Ella H. Wright, G. William Kirschenhofer, John W. Phoebe

Physical Education for High School Students was prepared under the direction of Eugene H. Sloane, Director of Publications, AAHPER

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Courtesy, North Phoenix (Arizona) High School

Fresh air and sunshine, exercise through individual and team sports, a balanced diet, regular hours of sleep, correction of defects, and periodic check-ups—these are the formula for keeping fit

Do you know the ingredients of a balanced diet? See p 7. Do you know how to keep in top condition for athletic events? See Chapter 31.



Courtesy, Minneapolis Public Schools

PART I

Getting Started Right

PHYSICAL EDUCATION



A physical education class is a time for sports and games, for the dance, swimming, stunts, and tumbling. These are all activities you might like to do for fun in your free time. But physical education is more than just fun. It is also a time for learning.

Perhaps you already know how to shoot baskets or dribble a soccer ball. But basketball and soccer will be even more fun as you improve your shooting and kicking ability. How about tennis? Or badminton? Do you know how to allemande left and swing your partner when the crowd wants to square dance? Can you do a backward roll or a hand balance? Or a front dive that cuts the water without a splash? You can learn how to do things like these in physical education.

As you improve your old skills and add new ones to the list, you will want to learn more about the fine points of the games you play—the strategy of defense and offense, how to set up a scoring play. This knowledge will take you out of the beginner's class and make you a sought-after teammate and a respected opponent. You will have a chance to learn this in physical education, but it will take work and practice as well as play.

THE RULES OF THE GAME

Have you ever tried to umpire a softball game or referee a basketball game? Then you know why it is important to know the rules of the games. A poor sport who breaks all the rules and argues with the officials spoils the fun for everyone. Knowing the rules and playing by them gives every player a fair chance and keeps the game moving. In your physical education class you can learn the rules you need to know. And when you take your turn at being a referee in the class games, you can earn the respect which good players have for the official who enforces the rules fairly.

The traditional courtesies and conventions which belong to each activity are important, too. Your physical education teacher will help you learn the right way to determine who gets first serve in tennis, how to report to the scorekeeper when you enter a game, how to introduce yourself and your partner to the other dancers in a set. You will want to know these things so you will be at ease when you meet other people at play outside of school.

KEEPING FIT

You will find that you need a strong and healthy body to enjoy such strenuous activities as tennis, basketball, tumbling, swimming, or square dancing. In your physical education class you can learn how to keep your body fit for work and play. Your teacher can help you learn how to move more freely and easily so that you will stand straighter, look better, and be able to work and play without unnecessary strain. You will also learn how to play safely, to prevent injury to yourself and others.

When you are feeling tense and irritated with yourself and the world around you, the vigorous activity of play will release your tensions and make you feel better. This experience will help you understand why recreation is important in keeping your mind and emotions healthy as well as your body.

Your physical education class is a good place to learn more about other people as well as about yourself. You can see how your classmates react to the bully, the spoil-sport, the girl who

pouts when she doesn't get her own way, the boy who always wants to be first, the braggart, the poor loser. At times you will feel your own temper rising when the breaks seem to be against you in a close game, and you can watch yourself to learn how well you can control your own behavior under stress. As you lose some games and win others, you will have a chance to prove your own sportsmanship by winning without boasting and losing without making whining excuses.

Playing on a team with a partner, you can learn the value of teamwork. And you can discover for yourself that the best teams are made up of people who work together, each giving the best he has to give without quarrelling about who is the star and who gets the credit for winning.

TESTING YOUR FITNESS

If you want to measure your own *fitness*, you can take a fitness test. By doing pull-ups, sit-ups, standing broad jump, shuttle run, 50-yard dash, softball throw for distance, and the 600-yard run-walk, you can test your strength, endurance, speed, agility, and arm and leg power.

There are tables which give your score on the fitness tests, and you can make a graph of your fitness record. Then you can check your achievement each year, to see how much progress you have made. You can even compare your own fitness record with national average scores of boys and girls of your age and height and weight.

Boys and girls all over the United States are taking fitness tests, measuring themselves against the national averages and noting their own progress in improving their fitness score. A system of award certificates and emblems has been set up to recognize achievement in fitness. Ask your physical education teacher about taking a fitness test and winning some of these awards.

DISCOVERING YOUR ABILITIES

You may notice that a boy whom you can shoot rings around in basketball is much better than you are at tumbling. The girl who can not get the volleyball over the net may be an excellent

diver. Some of your classmates will be good dancers, others good catchers, and some will be middle-of-the roaders in everything. You may like tennis while someone else may prefer touch football or square dance.

Some of your classmates may seem to be natural leaders, others may find it difficult to manage a squad. As you play with these people or against them, you will find out how you rate. You will discover what things you do best and what you enjoy most. This will help you to evaluate your own abilities and will increase your respect for the varied abilities of other people.

By the time you graduate from high school you should have a greater respect for your own body, what it is able to do, and have the habit of keeping it at its best. You should be acquainted with many activities which can be used for active recreation. And you should enjoy some of them and be able to do them well enough to use them in your leisure time after you leave school. You should feel at ease with other people because you know how to conduct yourself acceptably, whether it is on the dance floor, the tennis court, or the volleyball court. You also should have developed confidence in your own ability to learn new activities, and be ready to try new sports or new dance steps which appeal to you, even though you did not learn them in your physical education class. And because you have learned to recognize and appreciate good performance in many activities, you should get pleasure out of watching top-flight performers for the rest of your life.

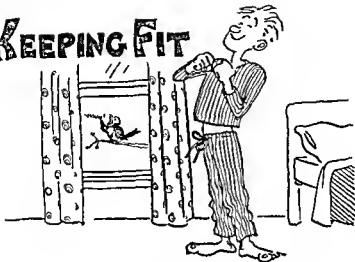
Your physical education class will provide you with the opportunity to participate in and learn all these things. But what you will get out of it is entirely up to you!

This book can be a big help. It won't take the place of a teacher of physical education, but it will make it easy for you to learn a great deal on your own, and it will be a helpful addition to class instruction.

FOR MORE INFORMATION

AAHPER Youth Fitness Test Manual. American Association for Health, Physical Education, and Recreation, NEA, 1201-16th St., N.W., Washington 6, D. C. For recording individual data on the AAHPER Youth Fitness Test, the *Personal Fitness Record Form* is available.

KEEPING FIT



Since you will soon be entirely responsible for your own health protection, you should recognize the importance of an annual health examination by your family physician or school physician, and for regular vision and hearing tests. At your age it is often easy to correct minor physical or dental defects that might later cause you difficulty.

In any case, if you are participating in interscholastic athletics, you should have a medical examination at the beginning of each playing season and as often as necessary during the season.

While you are in school you have access to a number of skilled advisors—physicians, nurses, teachers, and guidance personnel—to whom you can go for counsel on health problems. Take advantage of the opportunity to use their services while you can!

USE GOOD SENSE IN EATING

A steady diet of hot dogs, candy, and soft drinks won't build the kind of a body you want for a healthy, happy life. After all, what YOU choose to eat matters much more to you than to anyone else. Be sure that you have at least three glasses of milk a day, several servings of green and yellow vegetables and fruits, and meat and eggs. Bread, pastry, and sweets are all right too, in moderation, as long as you have included the more essential foods.

If you want to know more about what to eat, ask your physical education teacher, health teacher, or home economics teacher.

Here are some questions that are often asked about eating—the answers have been given by medical authorities.

1. *What kind of diet is especially favorable for the training or conditioning of athletes?* In general, athletes need the same foods that are good for non-athletes. There is some evidence that fat should be reduced somewhat in favor of starches and sugars. It is important that these extra starches and sugars be taken as whole grains and fruits rather than in pastry or candy.

2. *Should athletes use vitamin pills, gelatin, or pure oxygen to increase efficiency?* No, any person who eats adequate amounts of fruits, green and yellow vegetables, milk and meat does not need to get vitamins from pills. Gelatin is of less value than other protein foods. Breathing pure oxygen might have the same value as taking an extra breath or two and may be extremely harmful.

3. *Does extra sugar or salt improve efficiency of the athlete?* Sugar may give a little "lift" in a very few minutes. It is important in channel swims, marathon runs, and other long events. If normal amounts of salt are taken at mealtime, extra salt is not necessary except in extreme heat.

4. *How much water should athletes drink?* Generally, ordinary thirst may be depended upon as a gauge for amounts of water.

SLEEP

You need from 8-10 hours of sleep every night. Lack of sleep will show up quickly in sports—in your coordination and speed. Save your dates and parties for week-ends.

TOILET HABITS

You won't have to worry at all about elimination if you eat sensibly, drink enough water, and exercise daily. If you are concerned about constipation, get advice from your physician and teachers rather than from often-misleading advertisements.

CLEANLINESS

Keep clean. In addition to a bath or shower at least three times a week, you need a shower after vigorous exercise. Frequent

bathing and daily use of an underarm deodorant will keep you free of the unpleasant odor of perspiration. Brush your teeth as soon after every meal as possible to help prevent decay. Regular hair shampoos and attention to finger nails are important for your appearance, too.

WHAT ABOUT SMOKING?

The medical profession is in agreement that smoking may affect performance in distance events or in sports requiring unusual endurance because heart action is increased and blood vessels are constricted. Habitual smoking may interfere with sleep. It probably is a contributing factor to cancer of the lungs. Young people often begin to smoke because they think it is a sign of being adult. It is certainly *more* adult to weigh the doubtful pleasures of smoking against the expense (about \$100 a year) and the probable harmful effects on your body.

WHAT ABOUT ALCOHOL?

Even in relatively small amounts, alcohol reduces your power to judge distance and speed and affects the delicate movements of hands. Larger amounts of alcohol progressively affect larger coordinations to the point where persons cannot even stand or walk. Loss of needed judgment and coordination can hardly be desired by any young person. Drinking to prove that you are "grown up" is an extreme example of *immaturity*.

WHEN IS THE BEST TIME TO LEARN SPORTS?

While you are in school, your ability to learn sport skills is very high. More than that, you have a chance to learn under the guidance of expert instructors so that you will have less tendency to develop faulty habits and poor techniques. You have a chance for frequent short practice periods in school, which have been shown to be much more effective than longer, fewer practice periods. Now is the time for you to learn as many sport skills as you can so that you will always be able to enjoy outdoor recreation. You won't need to depend on "setting-up" exercises to keep yourself fit.

WHAT ABOUT WARMING UP AND COOLING OFF?

Before you take part in any strenuous sport or activity, it is important to warm up gradually to increase the elasticity of your muscles and avoid strains or sprains which might result from any sudden violent effort.

In the same way, slow down to normal gradually. When you stop exercising, keep moving, rather than stopping suddenly by sitting or lying down. In order to keep the blood circulating so that waste materials can be carried off, keep your muscles moving for a time after you stop violent exercise. This gives your breathing and heart rate a chance to recover more quickly.

WHAT ABOUT MUSCLE STIFFNESS AND SORENESS?

Moderate exercise is more effective in recovering from lameness or stiffness than complete rest. If you are careful to warm up gradually and taper off gradually, you are less likely to have sore muscles.

IS IT NORMAL FOR AN ATHLETE TO TREMBLE OR HAVE AN UPSET STOMACH BEFORE THE GAME?

This often occurs and is called "start fever." The feelings will go away as soon as the game begins.

ARE THERE ANY ACTIVITIES WHICH GIRLS SHOULD NOT PERFORM?

Girls should not do heavy lifting, jumping from high places, or other activities involving hard landings because of possible harmful effect to their reproductive organs.

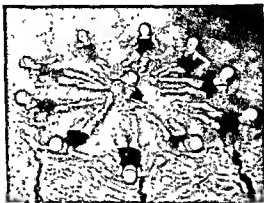
IN SHORT

Keeping fit is mostly a matter of using good sense in choosing your food, in getting at least eight hours sleep *every* night, and in assuming responsibility for cleanliness of body and clothing, regular exercise, and prompt correction of any medical or dental defects you may have.



The activities of physical education range from individual and team sports to four types of dance, recreational games, and co recreational parties

How many skills in these various activities do you have? Now is the time to learn as many as you can



What is the difference between the dribble in basketball and the dribble in soccer?

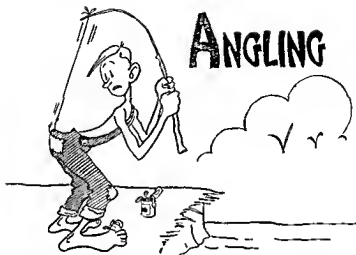
Is the "Bird's Nest" a stunt in gymnastics or synchronized swimming?

Do you know the four types of dance? How many are you proficient in?



PART II

Activities



You will probably be surprised to learn that angling, not baseball, is the most popular sport in America today. There were approximately twenty million fresh-water licenses issued in the United States alone during 1959. In addition approximately three and one-half million were permitted to fish without purchasing licenses. With the exception of the residents of the state of California, those who fish in salt water are not required to purchase a license. Estimates of the salt water anglers vary from six to twelve million. So conservatively speaking, we have at least twenty-seven and one-half million people engaging in this sport each year.

Angling is one of the oldest sports on record. The accepted authority, William Radcliffe of Balliol College, Oxford, England, in his book *Fishing from the Earliest Time*, states that a Roman by the name of Martial wrote about fly casting between 10 B. C. and A. D. 20. In the British Isles fly casting was not uncommon as early as 1550.

Bait casting is believed to have come into its own between 1800 and 1810 with the invention of the modern casting reel by George Snyder of Paris, Kentucky.

The first national tournament sponsored by a permanent organization, The National Association of Scientific Angling Clubs, was held at Racine, Wisconsin in 1907. This Club evolved into the National Association of Angling and Casting Clubs, a member of the Amateur Athletic Union. This angling and casting organization governs all recognized tournaments held today.

Another organization, the National Skish Board, promotes games that require standard fishing tackle.

I. FLY CASTING

Fly casting is one of the most challenging methods to catch fish. Originally this method was used only for the taking of trout and salmon. Now it is universally accepted as one of the most sporting methods for taking any species of fish that will strike an artificial lure.

Many beginners have the impression that fly casting is hard to master. This impression may be due to the writings of many of our so-called experts who seem to take pride in making this sport appear difficult. Truthfully, any person with average co-ordination and with competent instruction can learn the fundamentals of straight casting in just a few hours. Of course, many additional hours of practice are necessary to master all techniques.

FLY-CASTING EQUIPMENT

It is impossible to recommend a rod that will suit every person because there are so many factors to take into consideration. Most important is the selection of a rod that is not so heavy or powerful that it is tiring to the person using it. It is wise to have an experienced fly caster help select your first rod. If you must select your rod without guidance, choose an eight-foot rod, weighing approximately four and one-quarter ounces with appreciable backbone. This rod can be handled by most persons.

Fly rods are constructed from:

- | | |
|--------------------------------------|----------------|
| 1. Tubular steel (becoming obsolete) | 4. Spunglass |
| 2. Split bamboo (slowly losing out) | 5. Solid glass |
| 3. Hollow glass | |

Glass rods are now out-selling all other fly rods. They are, by far, the most serviceable for the price. However, a top quality split bamboo rod is still considered by some authorities to have better action. This belief may be nothing but tradition.

The main purpose of the reel is to hold the line. It also allows the angler to play the fish from the reel. The claim that the reel aids in balancing the rod is a gross exaggeration in most cases.

Types of reels:

1. Single action
2. Semi-automatic (not very popular)
3. Automatic

The single action reel seems to be preferred by most fly-rod men. The automatic reel is very popular because it will take up line rapidly, and keep tangles and snarls in the line at a minimum. Generally speaking, a fish can be played more carefully on a single action reel, especially in big water and with species of fish that make long runs.

The newest type of reel, the spinning reel, has a stationary spool. Since the spool does not revolve, there is no possibility of its over-running. Hence backlash—the snarling of the line in the reel—is eliminated.

The fly line is one of the most important items of equipment. Without the correct size of line, casting can be very difficult, sometimes nearly impossible. The line must be heavy enough to bring out the action of the rod, yet not so heavy as to make the rod sluggish. The line should float well and be pliable for ease in casting.

The most popular lines today are:

1. Level—This line is the same diameter throughout.
2. Double taper—Both ends of the line are tapered to a small diameter. The middle of the line preserves the same diameter as the peak of the taper.
3. Torpedo tapers—One end of the line has short taper leading to a heavy diameter head followed by small diameter running line.

Most rod manufacturers recommend the size of lines for their various rods. It is wise to follow their recommendations. If no

information as to size is available, the following table may be used as a guide:

Rod Length	Average Wt. of Rod	Line sizes	
		Level	Double taper
7'	3 - 3½ oz.	E	H.E.H.
7½' - 8'	3½ - 4½ oz.	E	H.E.H.
8½'	4½ - 5 oz.	E or D	H.D.H.
9'	5 - 6½ oz.	C	H.C.H.

The bulk of fly lines used today are level. Where exceptionally long casts are necessary the torpedo tapers are invaluable (see Fig. 1).

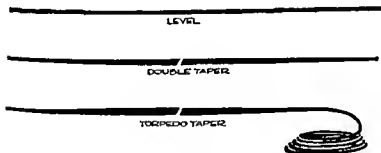


Fig. 1. Types of Lines

CARE OF EQUIPMENT

Split bamboo rods demand the most attention. They should never be put away unless they are perfectly dry. As soon as the varnish begins to crack, it is wise to apply a new coat or two of high grade spar varnish. After the varnish has thoroughly dried, you should wax the rod and repeat this operation from time to time. This additional protection will add to the longevity of the

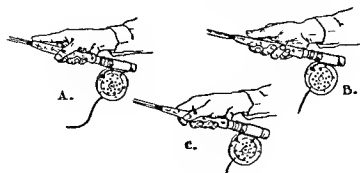


Fig 2. Grips

fly rod. If any of the wrappings become frayed or broken, repair them at once. A bamboo rod left standing outdoors or leaning against a wall or tree for any length of time takes a set (loses its original form).

When you are traveling through a brushy or wooded area, protect your rod from breaking by carrying it with the butt forward. Heat and moisture are the worst enemies of bamboo rods. Keep this in mind at all times.

Reels should be taken apart periodically, cleaned, greased or oiled, and worn parts replaced.

Great strides have been made in the finish of fly lines during the past few years. These new lines do not need to be cleaned and dressed nearly so frequently as the old oil-impregnated finishes. All that is necessary is to wipe the line once in a while to clean it. When the line is stored at the end of the season, it is best to remove it from the reel, loosely coil it, and store it in a paper bag or box. Level and double taper lines should be reversed on the reel from time to time, depending on the amount of use. Given proper care a good line will give the average fisherman many years of service.

PRINCIPLES AND TECHNIQUES

After assembling the fly rod, the beginner should become acquainted with the three grips (see Fig. 2 A, B, C). Select the

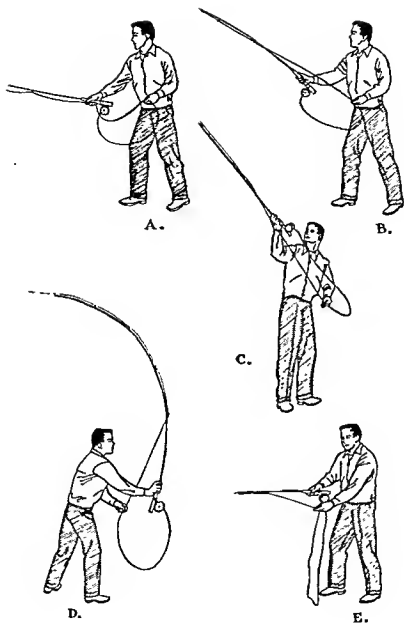


Fig. 3. Fly Casting

one that seems most relaxing to you. Most authorities prefer grip C. It is usually easier for the beginner to master the fundamentals of casting if the line is held securely at the handle by the second finger as in Fig. 3A. Strip off twenty to twenty-five feet of line and lay it on the ground straight out from the rod tip. Fig. 3A shows the position at the start of the cast. The right or left foot may be forward. It is usually easier for the right-handed beginner to watch the line and rod position if the left foot is forward. Always use the stance that is most relaxing.

Now we are ready for the back cast. Start the back cast relatively slowly, quickly increasing the speed. Try to throw the line directly over your head. At approximately 10 o'clock (Fig. 3 B) the speed is greatly accelerated by quickly bending the wrist. This acceleration should be carried to 12 o'clock. Without stopping allow the rod to drift to 1 o'clock (Fig. 3 C). When the power is carried beyond 12 o'clock the caster has a tendency to throw a low line on the back cast. When the line on the back cast gets below the height of the rod tip, it is difficult for the beginner to make a good forward cast. Turn the head enough to watch the back cast. Be sure that the rod does not travel back beyond 1 o'clock. Watch the line and see that it is high. By watching the line it is usually very easy for the caster to time his forward cast.

While there is still a loop in the line traveling backward, the rod should begin to drift forward (by wrist action) from the 1 o'clock position to the 12 o'clock position so that by the time the line has straightened out completely you are ready to apply the power to the forward cast (Fig. 3 D). This power (by wrist and arm extension) usually starts just after the rod has passed the 12 o'clock position. The skilled fisherman learns to vary the time of power application depending on the length of cast. This adjustment is only learned by experience. The power in this forward cast travels approximately to the 9:30 o'clock position. The cast should end with the rod slightly elevated and in line with the target (Fig. 3 E).

Practice until you have mastered the preceding fundamentals and you can cast without watching the rod and line.

You should now be ready to learn to strip and shoot line, and to cast without holding the line at the handle. Stripping and shooting the line usually involves false casting (backward and forward casts without allowing the line to touch the ground).

Strip six to eight feet of the line from the reel and hold it as in Fig. 3 A. Make a back cast as usual but, as the line begins to straighten out on the forward cast, pay out the excess line stripped from the reel and allow it to be carried out. This will give additional line to carry as a preparation for extending the range of your final cast. Without allowing the line to touch the ground, make another back cast; at the same time strip additional line from the reel and repeat the forward cast, shooting the additional line. This last time allow the line to settle on the forward cast. Do not try to carry too much line in the air until your coordination and timing have been perfected. Practice is the answer.

After you have mastered the described techniques, you are ready to practice under actual fishing conditions. This practice should preferably be out on a stream, lake, or pond where fish may be found that will strike a fly.

II. BAIT CASTING

Bait casting is usually more difficult for the average person to master. Of course, the difficulty depends on the type of reel used. There are reels sold today that are almost free of the possibility of backlash, such as the spinning reel. There is also an anti-backlash gadget that may be attached to the handle of the reel to prevent backlashing. Reels of this type were designed for the casual angler. A light-weight, direct-drive reel with a level wind is an excellent reel for the beginner. Once you have learned to cast with this type of reel, you will be able to cast with any quality casting reel.

BAIT-CASTING EQUIPMENT

Casting rods vary considerably depending on the kind of fish they are designed to catch and weight of lure they are to handle. Most popular rods today are of hollow and solid glass fiber from five to six feet in length. Steel and split bamboo casting rods are still in use but are fast losing their popularity.

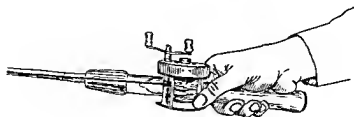


Fig. 4 Grip for Bait Casting

The reel is the most important part of the caster's equipment. One should buy the best that his pocketbook allows. It is recommended that you learn to cast with a reel without any anti-backlash device.

It is wise for the novice caster to start with an eight or ten pound test line. Nylon and dacron wear longer, but do not handle as well as silk. Tournament casters prefer lighter lines. After the technique of casting has been mastered, you may wish to adjust your line to your individual preference. Of course, the size and species of fish you expect to catch is a determining factor in the line size.

CARE OF EQUIPMENT

The same care should be given the bait casting rod as was suggested for the fly rod.

The casting reel is a fine piece of machinery and should be treated as such. Every quality reel is sold with instructions for its care. After each day's fishing, the casting reel should be oiled in all key points.

About the only care necessary for the bait-casting line is to keep it from fraying at the end by using a three to four foot nylon mono-filament leader.

PRINCIPLES AND TECHNIQUES

Rig up the rod and attach a practice plug to the end of the line. A five-eighths ounce plug is best for beginners. Grip the rod as is shown in Fig. 4. Note that the index finger is over the finger hook, and the thumb is resting on the line in the corner formed

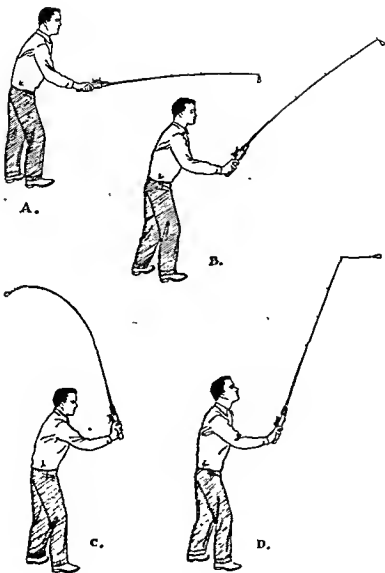


Fig. 5. Bait Casting

by the tail plate and the side pillars. The reel handle should be pointed up and the palm of the hand down. Stand with the right foot forward and pointed at the target, with the left foot slightly to the side and behind in a comfortable position. Point the rod tip at the target, keeping the elbow close to the front of the body and the wrist relaxed (Fig. 5 A).

To make the backcast, raise the rod tip steadily and vertically upward, gradually increasing the speed. When the 10 o'clock position is reached (Fig. 5 B), greatly accelerate the speed to a little past the 12 o'clock position (Fig. 5 C). Here check the rod abruptly; this will flex the rod. Now increase the speed of the forward cast. Use the wrist, not the arm. Relax the pressure of the thumb on the line when the rod reaches approximately 11 o'clock (Fig. 5 D). This will allow the plug to start its flight toward the target. Keep slight thumb pressure on the line throughout the cast, applying more pressure if you want to slow down or stop the flight of the plug. As the plug travels toward the target, follow it with the rod tip.

It is a good idea for the beginner to watch the rod during the initial casting sessions. Be sure that the rod does not come back too far and that the rod is flexing and casting the plug.

If you wish to know the rules for tournament fly and bait casting, write to the National Association of Angling and Casting Clubs for their By-Laws, Rules, and Regulations.

FOR MORE INFORMATION

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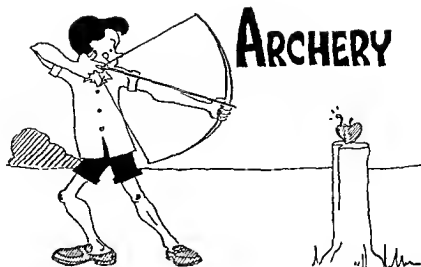
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The National Association of Angling and Casting Clubs issues a free pamphlet about the Association and a list of publications. The address is P. O. Box 51, Nashville 2, Tenn.



One of our oldest weapons is the bow and arrow. It was used as long as 25,000 to 50,000 years ago. Even today it is still the weapon of many primitive peoples as well as the implement used by modern sportsmen. Primitive man used the bow and arrow for the purpose of obtaining food and for defense against enemies.

Down through the ages archery has been practiced for both hunting and warfare. Many successful battles were fought with the bow and arrow as the chief weapon, such as the war in which the Egyptians overthrew Persia. The longbowmen of England were chiefly responsible for Henry V's victories over the armored Knights of France. The legend of Robin Hood revealed archery as a game of skill as well as a means of self-preservation.

With the development of firearms and the use of gun powder, archery lost its place in warfare but continued to hold a place in sports. The earliest archery tournament known was in England in 1673. The use of the bow in the United States naturally followed the pattern established in England. In 1825 the first archery club in this country was organized in Philadelphia and it is still in existence. The National Archery Association was organized in 1878.

Archery is an individual activity which can be enjoyed at almost any age and by both sexes, both indoors and outdoors. Archery has a special fascination for most of us. We can remember playing Indian with a home-made bow and arrow and listening to the legends of Robin Hood and William Tell.

With the interest increasing in this activity in this country, perhaps you are thinking you would like to learn this sport. It is a great challenge to try to achieve the fine coordination of muscles and eyes needed for skill in archery. This exercise can help you strengthen the muscles needed for good posture development.

To enjoy archery fully, skill is required, and to obtain this skill you must practice certain techniques. But even before this you need to be fitted with the necessary equipment.

EQUIPMENT

The equipment an archer needs for target or field archery consists of a suitable place to shoot, which is called the range or field course; a target; a bow; arrows; an arm guard; a finger tab or shooting glove; toe markers (if using the point of aim method); point of aim or sight; and a quiver.

The Range

The school gymnasium can be used for this purpose. Targets should be set up with some space between them and the wall, and with a back drop of burlap or felt behind these targets.

A protected corner of the school yard may be available. The one requirement is that the area be isolated or well protected, for the safety of the spectators and participants is essential. Roping off the space is a wise precaution.

If possible the range should be the size for standard rounds, but if space does not permit this, 20 to 30 yards will be satisfactory for practice purposes.

The Target

The regulation target is made of straw and is four feet (48 inches) in diameter. It is mounted on a wooden tripod so that the center of the target is four feet above the ground. The target face may be made of oil cloth or heavy paper with gold at the

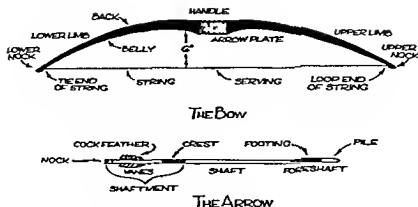


Fig. 1. Parts of the Bow and Arrow

center (9.6 inches wide) then concentric circles (4.8 inches wide) of red, blue, black, and white.

The Bow

Bows are made of glass fiber; wood such as lemonwood, osage orange, or backed hickory; or they may be laminated (several different kinds of wood and glass fiber joined together). In schools and camps, lemonwood or glass bows are usually used because they are durable, economical, and efficient.

The bow should be light in weight to make it possible for you to acquire good form. By "weight" is meant the number of pounds it takes to pull an arrow its full length. For the beginning archer bows of from 15 to 18 pounds are recommended, with an average length of 5 feet, 6 inches.

The parts of the bow are, the back, the belly, the handle, the upper and lower limb, the nock, the arrow plate, and the string with its serving (Fig. 1).

The upper limb is slightly longer than the lower limb, and the bow should be shot with the upper limb up. When you first begin, it is helpful to put an elastic on the bow in place of the string for the purpose of learning the full draw position and the release, and making it possible to have errors corrected easily.

Bracing the Bow

To brace the bow, take the handle of the bow in the left hand with the back of the bow facing skyward. Place the lower end against the arch of the left foot, being careful that the tip of the bow does not touch the ground. Place the heel of the right hand on the back of the bow. By pulling on the handle with the left hand and pressing with the heel of the right hand, you can bend the bow enough to push up the string with the right hand until it slips into the nock. The left elbow should be kept firmly on the left hip so that the body when twisted on the left will assist in the bracing process (Fig. 2).

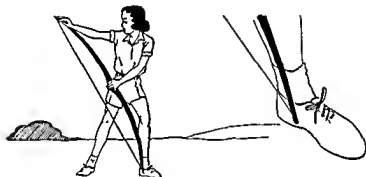


Fig. 2. Bracing the Bow

Arrows

Arrows may be made of several kinds of wood: birch, pine, or Port Orford cedar; or they may be made of steel, aluminum, or glass. Schools usually use wooden arrows. These may be one of two types, the self, made of a single piece of wood, or the footed which has a foreshaft of hard wood.

The parts of the arrow are the shaft, the footing, the point or pile, the nock, the feathers (the "cock" feather and "hen" feathers), and the crest (Fig. 1).

The sets of arrows (6 arrows in each) vary in length according to the group participating. Usually the arrows range from 22

inches to 28 inches in length. The exact length is an individual matter.

Suitable length may be determined in several different ways. The measuring bow is perhaps the most satisfactory. However if this is not available, take a long arrow and mark it off 22 inches thru 28 inches. Using it, draw the bow string to the correct anchor position and record the length drawn. In using the "marked arrow," hold the nock to the breast bone, and extend your hands and arms along the arrow. Where the finger tips touch indicates the length arrow needed.

Arm Guard

An arm guard for the forearm of the bow hand is a "must." It is usually made of leather or some plastic material. This should be worn at all times to protect the forearm from injury.

Finger Tab or Shooting Glove

Another bit of necessary equipment is a finger tab or shooting glove. Both are made of smooth leather. One or the other of these should be worn when shooting to protect the first, second, and third fingers of the hand that touches the string.

Toe Markers

When the point of aim method is used, toe markers are necessary to make certain that you stand in identically the same spot each time you shoot. In the gymnasium, use a chalk line on the floor at the toe edge of your shoes. On the outdoor range, put toe markers (bottle caps with nails through them will do) into the ground at the toe edge of your shoes.

Quiver

The quiver holds the arrows. The belt type may be used. The floor or ground quiver may be preferred as it holds the bow as well as the arrows. Bows and arrows should never be laid on the ground or floor as there is danger of their being stepped on and broken.

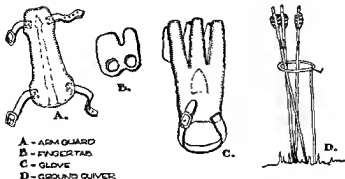


Fig 3. Other Equipment

How to SHOOT

Fundamental Steps for a Right-handed Archer

1. Stance

Stand with your feet straddling the shooting line (one foot on either side of the line). Your weight should be evenly divided between both feet. Your feet should be a comfortable distance apart. Your toes should be touching the toe markers.

2. Nock

- a. Bowhand—The left hand “shakes hands” with the bow lightly. The thumb and first finger encircle the bow. The bow rests against the “fatty ham” below the thumb. With this hand position the first finger forms a flat shelf even with the handle.
- b. Arrow—Pick up the arrow with the thumb and first finger (of the right hand). Place the arrow on the string (“nock”) at right angles to the string with the “cock” (odd) feather away from the bow. The shaft of the arrow is resting on top of the bow hand.
- c. Stringhand—Place the first finger above the arrow, the second and third finger below the arrow on the string. Hook these fingers, very slightly in front of, or in the first joint, on the string. When this position is taken there is no further work for the fingers, because they act as hooks.

3. Draw

Pushing with the left arm and pulling with the right arm:

- a. The bow arm reaches full draw with the arm raised to shoulder height and with the elbow slightly bent.
- b. The string arm and hand reaches full draw with the string touching the center of the nose and chin, with the arm and elbow at shoulder height.

4. Anchor

For target shooting, the first finger of the right hand should be placed under the jaw and the thumb lowered so that it has no part in the anchor. This anchor must always be the same because consistency is important for good shooting.

5. Aim

Close the left eye and aim with the right eye. Aim at the "point of aim," pointing the arrow so that you see the point of aim just above the pile or point of the arrow. In this point of aim method, if the arrow is raised enough to hit the gold of the target when shooting at a short distance (say 20 yards), the eye will see the pile of the arrow at a spot below the gold, usually on the ground. This is because the nock of the arrow is brought to the chin, which is several inches below the eye level.

As is shown in the diagram (Fig. 4), the path of the arrow and the line of vision are different. The arrow flies in an arc and the line of vision is a straight line. To make certain that the point of aim is in line with the gold of the target hold the bow vertically (the upper limb straight up and the lower limb straight down) and use the bow string as a check. It is also possible to attach a sight to the bow, through which the archer sights the "gold" on the target. This can be made very easily by attaching a strip of adhesive tape to the bow just above the handle and sticking a small black-headed pin so that the head or "bead" projects at right angles from the left side of the bow. The correct placement of the "bead" at the various ranges is found by trial and error.

In sight aiming, the line of vision goes from the right eye (for

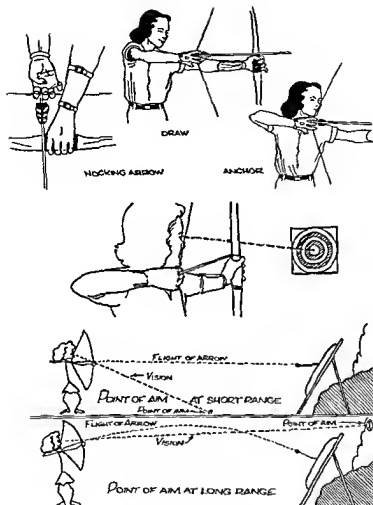


Fig. 4. Shooting

the right-handed archer) through the "bead" to a definite spot on the gold of the target. If arrows go too *high* correction is made by moving the sight *up*. If arrows go too *low* the sight is moved down. If arrows go to the *right* push the "bead" *right*—

in toward the bow. If they go to the *left*—pull away from the bow. *Extreme accuracy in aiming is essential to good scoring.*

6. Release

Roll the fingers off the string, keeping this hand in contact with your neck as your arm moves back. The elbow remains at shoulder height. As the fingers roll off, you feel your shoulder blades moving closer together.

7. Follow Through

Hold this position until the arrow lands or for about the count of five after the arrow has left the bow. This is important, for if you move sooner you might spoil your whole shot.

SCORING

The face of the target has five rings each with a definite scoring value. The gold counts 9 points; red scores 7 points; blue scores 5 points; black scores 3 points; and white scores 1 point.

An arrow passing through or rebounding from the target face counts 7. An *end* consists of six arrows. Each archer usually shoots an end before retrieving his arrows.

WITHDRAWING ARROWS FROM THE TARGET

An arrow should be withdrawn from the target at exactly the same angle that it entered so as not to damage it. Take a position alongside the arrows and the target. Place the back of one hand against the target face. With the thumb and index finger of the other hand as close to the tip of the arrow and target face as possible, pull straight out while at the same time pressing the back of the other hand against the target.

ARCHERY COMPETITION

Rounds

Junior American—30 arrows each from 50, 40, and 30 yards

Junior Columbia—24 arrows each from 40, 30, and 20 yards

Scholastic—24 arrows each from 40 and 30 yards

Junior Scholastic—24 arrows each from 30 and 20 yards

There are other types of contests which are very popular such as Clout Shooting, Archery Golf, and Field Shooting and many novelty events. For more information in regard to these refer to the Division for Girls and Women's Sports *Archery—Riding Guide*, current edition, or Joseph Mandel's *Archery Workbook*.

ESSENTIAL SAFETY FACTORS

1. Nock arrows only after given the signal to shoot.
2. Retrieve only after given the signal.
3. Always wear arm guard and finger tabs to protect your arm and fingers from injury.
4. Step back about three yards from the shooting line when you have finished shooting.
5. Never step across the shooting line to reach an arrow that has fallen from your bow. If you can reach it with your bow while standing astride the shooting line, you may pull it back.
6. Avoid wearing clothing or pins which might get caught in your bow strings.
7. Only shoot when there is supervision by an archery teacher or qualified archer.

Courtesy

1. Never disconcert another archer by words or action.
2. Record your score correctly and do not boast to others about it.
3. Help others at your target retrieve their lost arrows, to avoid delaying the whole group.

ARCHERY TERMS

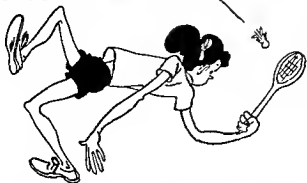
Addressing the target The stance for target shooting. The body is at right angles to the target and the feet straddle the shooting line.

Anchor point A definite spot on the face which the index finger of the string hand must consistently touch in drawing

Brace To string a bow.

Clout A white target placed on a stake or on the ground as a mark in long distance shooting (*Clout* comes from an Old English word for "little cloth.")

BADMINTON



Badminton comes to us from England. British army officers stationed in India learned to play a native game called *Poona*. They liked it so much that around 1860 they took equipment back to England and introduced the game to their friends. The Duke of Beaufort used *Poona* to entertain his guests at his country estate, Badminton House. The guests showed their appreciation by adding a few rules and re-naming the game "Badminton."

In 1887 the Badminton Association was formed to standardize rules and to serve as a governing body for the game in England. Although the game was first played in New York City in 1878, very few Americans knew of its existence until 1918. Our soldiers stationed in England during World War I learned to play it, and on their return home they gave a boost to its popularity in this country.

Though badminton is now accepted as one of our most popular sports, the newspapers seldom carry reports of badminton matches. Many people do not know that the game is played on a local, sectional, national, and international basis. Just as tennis has its Davis Cup, badminton has the Thomas Cup.

There are many reasons why the game is so popular. Played by experts, it requires faster coordination and more physical

stamina than does tennis. Beginning players, on the other hand, can enjoy it with very little technical skill. It is an ideal sport for boys and girls to play together and can be played indoors or outdoors. The tempo of the game depends on the players, thus making it a good game for players of all ages.

THE GAME

Badminton is similar to tennis, but the smaller courts and lighter racket require an entirely different use of the arm and wrist. The game is usually much faster. Strength and endurance, although desirable, are not so important as quick thinking, coordination, and skill in performing a variety of strokes. If you can outwit your opponent with deceptive shots and thereby exhaust him, you may beat an opponent who can hit harder than you can.

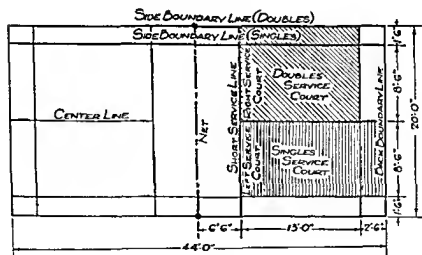


Fig. 1. The Court

The main purpose of the game is to score points by placing your shots so that your opponent cannot return the shuttle to your court. In order to play the game successfully, there are a few basic skills that you should try to learn.

BASIC SKILLS

The first important thing is how you hold the racket. For forehand strokes and service, the grip is similar to the Eastern forehand grip in tennis. Put the racket handle in the palm of your hand with the flat face of the racket parallel to the ground or floor. Now wrap your little finger around the sides of the handle. The other two fingers are spread apart and curved around the handle.

Keeping this grip, turn your racket so that the strings are now at right angles to the floor. Now you will see that the index finger and thumb form a large V right on top of the handle. Be sure you always have that V for forehand and service strokes.

For backhand strokes many players shift the grip slightly to the left and straighten the thumb a little along the flat edge of the handle. This might help you to get a little stronger wrist motion, for in all strokes a snap of the wrist as the shuttle is hit is essential.

The Serves

Now you are ready to serve the shuttle to your opponent. The short serve is used a great deal in doubles play, and occasionally in singles for variety. For this serve, stand in a stride position with the left foot forward. (All directions are for the right-handed player; reverse them if you are left-handed.) Hold the shuttle by the tip of a feather, in front and a little to the right of your body. Keep more weight on your left foot. Use a short back-swing with your wrist well-cocked, and hit the shuttle out of your fingers (Fig. 2). This action is like the swing of a gate. The shuttle should clear the net by a couple of inches.

For all serves the shuttle must be below your waist when you hit it, and the head of your racket must be below your hand. To do a long serve, transfer your weight from your left foot to your right as you do the back-swing. Then transfer your weight to your left foot again as you hit the shuttle. Use a full circular back-swing, with wrist cocked. Then swing the racket forward and hit the shuttle well in front of you, and follow through

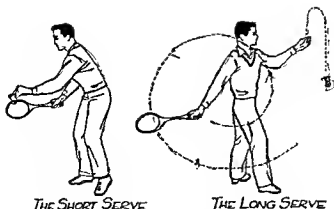


Fig. 2. Serves

along the line of flight of the shuttle (Fig. 2). The shuttle should travel high and deep into your opponent's court so that he is forced back to the base line to play it. This serve is used a great deal in singles and occasionally in doubles. When you become a more advanced player, you will probably want to learn the driven serve, also.

Some Exercises

Here are a few ways in which you can learn the feel of the racket and the shuttle. Hit the shuttle straight up into the air, and using plenty of wrist action, count the number of consecutive hits you can make. Hit the shuttle upwards and catch it on your racket. Hit the shuttle against a smooth wall, starting near the wall and moving back gradually, hitting continuously. Use the side of the racket to pick the shuttle off the floor.

Forehand Stroke

Now suppose your opponent has hit the shuttle to you, and it comes on your right side. You will want to take a forehand stroke to return it. If possible, let the shuttle drop to the level of your waist or knees before you contact it. (You may have to move up or back a little). Your body should face the right sideline, and your left foot can be a little closer to that sideline

than your right foot. Your left foot is also closer to the net than your right foot. As you swing your racket back, your weight goes to your right foot. Bend your arm a little and cock your wrist. Now as you swing forward, straighten your arm and transfer your weight to your left foot. Just as you hit the shuttle, snap your wrist forward, and then follow through a little with your arm in the direction of the shuttle flight. This should be one continuous smooth motion. This forehand stroke can be used regardless of how high or low the shuttle is when you contact it (Fig. 3).

Backhand Stroke

If the shuttle comes to you on your left side, you will want to use a backhand stroke. For this, face the left sideline, and reverse all of the above directions for the forehand stroke (Fig. 3). There is one backhand stroke in which the body faces more toward the net, this is called the round-the-head stroke, but you will not need to learn that yet.

Overhead Stroke

Another stroke in which the body may be partially facing the net is the overhead shot. For this stroke, have your left foot slightly in advance of your right foot. Lean back on your right foot as you take a big backswing; then transfer your weight to your left foot as you swing forward to contact the shuttle (Fig. 3).

What you do with your wrist will mainly determine whether your overhead stroke will be a clear, a smash, or a drop shot. For the clear, you have the normal amount of wrist snap, and you follow through with your hand pointing over the net. For the smash, which is only attempted when you are in the front half of the court, your wrist snap must be doubled in power and speed, and you follow through with your hand pointing toward the floor.

The drop shot is a deceptive one. To your opponent it looks as though you are doing a clear, but you ease up on your wrist snap so that the shuttle just sails over the net and drops to the

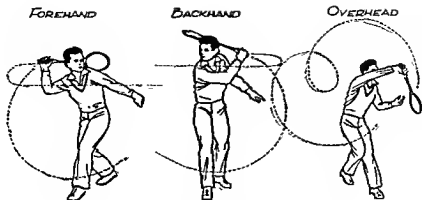


Fig. 3. Strokes

floor close to the net. Your opponent is expecting it to come to the back part of his court, and he may not be able to run up fast enough to hit it before it drops to the floor (Fig. 4).

Footwork

In the waiting position the body should be bent slightly forward with the weight more on the balls of the feet. As you move for a shot, use short steps to cover the court, perhaps ending with one long stride if necessary. When moving toward the back of the court, never run backwards. Instead pivot, and slide or run to the proper position. The pivot is something like the one you may have learned in basketball, and is used a great deal in badminton to change your body direction quickly. Always try to return to your "home position" as soon as you have completed a shot, so that you will be ready to move again for the next shot. The home position is shown in the accompanying diagram (Fig. 4). Remember to keep your eyes on the bird, move quickly, get your balance, and keep far enough away from the shuttle to enable you to take your shot easily.

Net Shots

There are just a few more strokes you need to know about before you are ready to try a game. These are the net shots,

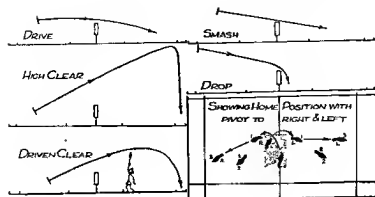


Fig. 4

and they are used when your opponent draws you close to the net with either a drop shot or a net shot of his own. One is the hairpin shot, in which the shuttle makes a hairpin curve (Fig. 5). Either foot may be stretched forward, but with the right foot forward you will get a longer reach. Your racket contacts the shuttle close to the floor and parallel to the floor. You tighten your grip and strike the shuttle lightly with a lifting motion, no wrist snap.

If you are closer to a sideline than to the center of the court, you can try a cross-court net shot (Fig. 5). This will be forehand when you are on the right and back hand when on the left. The shuttle must be contacted when it is close to the height of the net, and the entire action is done with a turn of the wrist which is a little slower than the usual snap.

SINGLES PLAY

Now let's try a game. Get your friend Pat for an opponent. Suppose you serve first. You stand in your own right-hand service court. Pat stands in the diagonally opposite court. You must use an underhand serve, and remember that the shuttle, when hit, must be below your waist and the head of the racket lower than your hand. The shuttle must cross the net, clear

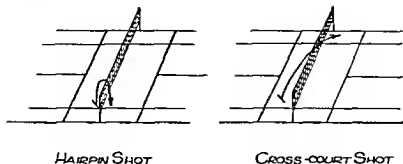


Fig. 5

the space between it and the short service line and reach Pat's receiving court (See Fig. 1).

If Pat fails to return the service or loses the rally, you win one point. You and Pat then move to the left-hand service courts, and you serve again. Until Pat wins a rally or you fail to make a good serve you continue serving from alternate courts. When Pat wins a rally and becomes the server for the first time, she has no score, as only the server can win points. She starts to serve from her right service court.

Suppose Pat won 2 points, then lost a rally and you are again the server, and the score is 3-2 in your favor. Take time out, while you learn a unique feature of badminton scoring in singles play.

Whenever *your* score is zero or an *even* number of points, you serve from your *right-hand* court. But when *your* score is an *odd* number of points you serve from your *left-hand* court. Remember *your* score is 3 points. Therefore you serve from your left-hand court. As Pat has 2 points, *she* will serve from her right-hand court when next *she* becomes the server. This rule does not hold when you play doubles.

When playing singles, you have a narrow court because the alleys are not used. So in most of your strategy you are trying to maneuver your opponent up and back in his court, although occasionally from side to side also. Your opponent's backhand corner is usually an especially vulnerable spot; so smashes and net shots are often point winners.

For girls, the game is won by the first player to win 11 points, except when both players have 9 points, or both players have 10 points. If this happens see the list of terms below or a rule book for the explanation of "setting." For boys, the singles game consists of 15 to 21 points, as they decide. A "rubber" is the best of 3, 5, or 7 games. In regulation play it is the best of 3.

DOUBLES PLAY

Now let us use the alleys of the court for both service and play. On service, the line which is $2\frac{1}{2}$ feet from the back boundary line is the back service line, but after service, the entire court is used. Suppose you and Pat oppose Jean and Dick for a game of mixed doubles. You are the first server; *so you serve from the right-hand court to the court diagonally opposite you.* If you win the point, you move to the left hand court and serve from there. You and Pat exchange courts for this, but Jean and Dick stay where they were. As long as you continue to win points, you continue to serve, alternating courts each time.

When you lose your serve, it goes to your opponents. If Jean is standing in the right court over there, she will serve next. When she loses her serve, Dick will serve next before it comes back to your side. He will serve from the court he happens to be in at that time. Now when he loses his serve, it comes back to your side. Whoever is in the right court will serve first, and when he loses his serve (let's say it was you), then Pat will serve from the court *where she happens to be when you finished serving.*

Are you able to follow this pattern? On the first serve, the team starting gets only one term of service. This is usually called "hand down." Thereafter, each player on a team gets a term of service before the serve goes to the other team, or in badminton language, "two hands down." When the serve changes sides, it is always started by the player who is in the right court, even though that player might have served last the last time the serve was on this side.

There are several different ways of playing in doubles. Sometimes the teammates prefer to be responsible for the entire right or left sides of the court, from the net to the back line. Sometimes, one player covers the front half of the court, all the way across, while his partner stays in the back part of the court. There are even some fancier ways to divide the court, like diagonally, or rotating areas. Perhaps for a start, you had better play side by side with your partner, and when you are ready for more advanced doubles play, your teacher can help you, and you can study some of the books listed at the end of this chapter.

A doubles game is won by the team getting 15 or 21 points, as agreed by the players before they start. The server should call the score before each serve, naming his team's score first, and indicating how many hands are down. For example, you might call the score as "6-3, one hand down," if your score is 6, your opponents' is 3, and Pat has already served during this inning. When both partners have completed their serves, it becomes two hands down. This completes an "inning," and the opponents get the serve.

HELPFUL HINTS

The following are helpful hints to improve your game:

1. Play singles whenever you can to develop an all-round game.
2. When possible reach forward to hit the shuttle.
3. For shots back of the short service line, have your side toward the net.
4. Use correct wrist action at all times.
5. Concentrate on placing the shuttle as far away from your opponent as possible. As you gain skill, begin to practice deception.
6. Risk clearing too far rather than not enough; otherwise you may set up the shuttle for your opponent to smash it.
7. The smash is the chief attacking stroke; so learn it soon.
8. Keep your opponent as far from the net as you can.
9. In singles keep your opponent moving up and back in the court rather than from side to side.

10. Never be in a hurry to finish a rally; keep the shuttle in play until you have an opening for a winning shot.
11. Return to your home position after each shot.
12. In singles use a high deep serve to force the receiver back to his base line; fool him occasionally with a short serve.
13. Plan your attack with straight-ahead shots and only use cross-court shots when you have an opening for a sure point.

ETIQUETTE

Etiquette in badminton simply means the courtesy which players show each other in the game. Courtesy and good sportsmanship imply knowing how to win or lose gracefully and being able to accept all decisions in a good spirit. Some other specific points that apply to both tennis and badminton are:

1. Your visitors should have the choice of side or service.
2. The server keeps the score and calls it before each serve.
3. Never walk behind a court while a rally is under way.
4. Refrain from bothering another court for your shuttle until the rally is over.
5. Refrain from playing singles if others are waiting to play.
6. Be sure that your opponent is ready before you serve.
7. The losers of a match should congratulate the winners.
8. Help your partner, opponents, and any spectators enjoy the game by being courteous and cheerful.

SAFETY

You should always wear good tennis shoes to protect your ankles and good socks to protect your feet. Avoid any type of clothing which will hamper your arm or leg action. When playing doubles, get your signals straight with your partner so that you will not go after the shuttle at the same time and hurt each other. If you wear glasses, it is wise to wear a glasses protector. If you learn how to play a clever game, there is little danger of over-exhaustion from a badminton match.

OFFICIATING

In informal matches and games, no officials are needed, and

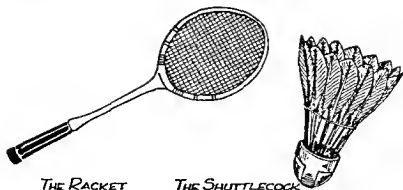


Fig. 6

the server calls the score each time before serving, naming the server's score first. Decisions are made by the players, and any disputed points are replayed. However, in tournaments it is desirable to have a Tournament Referee and Umpires for each match. The umpires can be assisted by linesmen and net umpires. The umpires call each point clearly and record it on the official score card. For more details on how to become a good badminton official in your school, see the *Tennis-Badminton Guide*, published by the National Section for Girls and Women's Sports.

SELECTION AND CARE OF EQUIPMENT

The price of rackets for badminton varies as much as the price for tennis rackets. A medium-priced racket will serve better in the long run than a cheap one. It pays to buy a good frame, as cheap frames break or warp when re-strung. Get a weight and size that you can handle easily. Nylon or gut strings are quite satisfactory. When not in use, the racket should be kept in a moisture-proof case and a press to prevent warping. Store it on a flat surface or hang it up in a place that is neither too hot nor too cold. Apply wax to the wood frame occasionally, and have broken strings repaired at once.

Always try to play with a shuttlecock that is in good condition,

because its flight will affect your game. Official matches must be played with shuttles made of feathers, but the plastic shuttles are cheaper and more durable. Store your shuttles in an upright position with the base down. Remove them from the box by the base. The feathers will be less brittle and last longer if they are kept in a moist place. Several hours before using, open the can and place a wad of wet paper in the bottom and top of the can. For outdoor play, be sure to get outdoor shuttles, which have a slightly heavier base than those for indoor play.

Keep the net folded and stored flat when not in use. Repair any holes or tears with very strong thread. Never pull on the net once it is in place for use.

BADMINTON TERMS

Acc. One point.

Bird. Shuttle or shuttlecock.

Clear. A high deep shot.

Down. Loss of service when the server or the serving side fails to score. In doubles each side has two downs, except in the first inning of a game when the serving side has one down.

Drive. To make a fast hard-hit shot parallel to the ground.

Fault. An attempted service or return which falls short, hits the net, or lands outside the playing area.

Game. Fifteen points in doubles, mixed doubles, and men's singles. Eleven points in women's singles.

High clear. A clear that goes high overhead and falls in the back court.

Inning. A side's turn at serving.

Let. Permitting the serve to be made over. If the shuttle touches the net in an otherwise good service, it is a "let." Compare with tennis.

Pop-up. A slow high flight, the bird falling close to the net.

Rally. A play in which rapid returns are made by both sides.

Round-the-head-stroke. A circular "round-the-head" stroke used in returning overhead or shoulder-high flights on the left side of the body.

Setting. Increasing game points when the score is tied at: 9-all, 10-all, 13-all, 14-all. In a 15 point game when the score is tied at 13, it may be set 5 points; when tied at 14, it may be set 3 points. In all 11 point games, when the game is tied at 9 it may be set 3 points; when tied at 10 it may be set 2 points. The option of setting rests with the player or side first reaching the tied score. The meaning of *setting* in badminton is different from the meaning of "setting" in card games.

Smash. A powerful stroke, the kill shot of the game.

Throw. An indistinct hit, usually caused by catching the feathers in the strings. This is considered a "fault."

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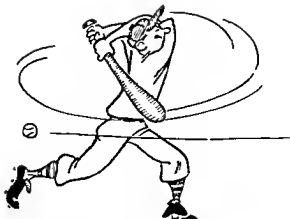
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BASEBALL AND SOFTBALL

I. BASEBALL

The true origin of baseball is a subject of much dispute. Abner Doubleday has been credited by some as the founder of baseball at Cooperstown, New York in 1839. However, the baseball diamond as we now know it was drawn by Alexander Cartwright in 1845 at New York City. He was a member of the Knickerbocker Baseball Club whose members attempted to organize the then haphazard rules of many areas.

Baseball probably came from cricket, which was brought to America from England by early settlers. The children watched the adults play the game and improvised their own equipment and rules. When the upright stake used in cricket was abandoned for a rock or base (meaning "station"), the game received its name of baseball.

EARLY BEGINNINGS

Early rules provided that the winner of a game was the first team to reach 21 "aces" (runs). Later this was discarded in favor of the nine-inning game. Many other rule changes have evolved over the years, but the distances between bases have remained at 90 feet.

At first the game was played solely for the recreation of players, originally the children, then adults also. Expense of travel and equipment grew to be quite an item; so a charge was made to spectators to defray expenses. As spectator interest mounted, occasional key players were paid for their services. Then in 1869 a team composed of all paid players made its debut in Cincinnati, Ohio.

Captives of the Confederate Army had seen some games played by the Union Soldiers during the Civil War, and the game had captured their fancy. When they returned home they introduced it in the South, and thus knowledge of the game started spreading to different parts of the country.

POPULARITY

The popularity of the game increased very rapidly. The National League was formed in 1875 and the American League in 1901. Each year at the end of the season the World Series is held, the winning team of each league playing against the other to determine the world champions.

In addition to the two major leagues there are a number of minor leagues. The minor leagues are classified from the largest AAA to the smallest D and F. A third major league is planned.

In 1939 organized baseball dedicated in Cooperstown, New York, the National Baseball Hall of Fame and Museum. Each year thousands of visitors come to Cooperstown to see the remarkable collection of baseball items, such as the first catcher's mitt and the bat Babe Ruth used in 1927 to hit his sixtieth home run. The greatest honor in the world of baseball is to be elected to the Hall of Fame.

THE GAME

Baseball is a game between two teams of nine players each. The players and their designated numbers used in scoring are 1) catcher; 2) pitcher; 3) first, 4) second, and 5) third basemen; 6) short-stop; and 7) left, 8) center, and 9) right fielders (see Fig. 1). The field of play is a large area with a diamond near one end. The diamond, which is actually a square, is formed

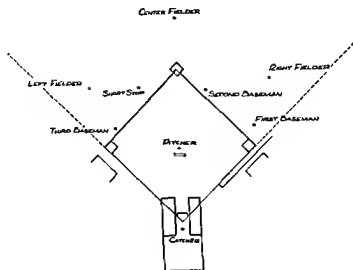


Fig 1. The Diamond and the Players

by four bases 90 feet apart. The pitcher's box or mound is 60 feet, 6 inches, from the home base and on a straight line between home base and second base (see Fig. 1). It should also be 15 inches higher than home base.

The object of each team is to score more runs than the opponents in nine innings. An inning is a part of the game in which each team has been alternately on defense (in the field) and on offense (at bat) until each team has made three outs at bat. The home team starts the game by taking the field first. For class and intramural games the team to take the field first should be determined by the toss of a coin.

Baseball is composed of three distinct types of play or contest: (1) between the pitcher and the batter, (2) between the hitter and fielders, and (3) between the base runner and the fielders. A run is scored when an offensive player advances from batter to

base runner and touches all four bases in order before his side is retired. An out is made when a batter is unsuccessful in reaching first base or when a base runner fails to advance to the next base.

Batting Rules

The batter may reach first base in many ways: by hitting the ball in fair territory where the fielders cannot catch it or throw it to first before he arrives; by being hit with a pitched ball; by getting a walk when four "balls" have been thrown by the pitcher; by an error by a fielder; by the catcher's interfering with him; or by a fair hit ball striking an umpire.

A runner may advance to another base if he reaches the base before being tagged with the ball. He may attempt to advance by a free choice, or he may be forced to advance without penalty when a man at bat is walked on four balls or with possible penalty of being put out when a batter makes a hit and forces him to advance to another base.

The batter is out under these conditions: when a fielder catches his batted fly ball; when a third strike is caught by the catcher, or on a third strike when first base is occupied and there are less than two outs; when he bunts foul on a third strike; when the batted ball is thrown to first before he arrives; when he hits a fly to the infield if first and second base are occupied and there are less than two outs; when he interferes with players attempting to make the put-out; when he fails to bat in his proper order; or when he hits the ball while standing out of the batter's box.

Base-running Rules

The base runner may advance without liability to be put out if the pitcher balks or if a fielder obstructs his attempt to reach the next base. The base runner is out if he interferes with a fielder playing the ball; if he runs out of the basepath to keep from being tagged; if he fails to touch base after a fly ball is caught; if he is tagged while off base; if he is hit by a batted ball while off the base in fair territory; if he passes the runner ahead

of him; or if he is off base when a fly is caught and the ball reaches the baseman before he can get back to the base.

Other Important Rules

All defensive players must be in the playing field before each pitch except the catcher who must stay in his box behind home plate. However, fielders may run into foul territory to field a batted ball. The pitcher is required to keep one foot on the "rubber" while pitching.

The strike zone is the area above the plate between the batter's arm pits and knees. A pitch through this zone is a "strike" on the batter. Any pitch passing outside the zone is a "ball" provided the batter does not swing at it. Three strikes make an "out" and four balls give the batter a "walk" to first base. Balls hit into foul territory are "foul balls" and are strikes unless there are already two strikes on the batter. After two strikes "foul balls" do not alter the count on the batter unless he bunts foul.

The batting order must be followed throughout the game unless there is a substitution. Failure to do so results in an out for the man who was to have batted. A substitute bats in place of the man whose place he took in the batting order. Players removed from the game cannot return.

It is a regulation game when the home team scores more runs in eight innings than the visitors have scored in nine; or in the case of rain or darkness when the home team scores in four innings more runs than the visitors have scored in five innings. In case of a tie at the end of the ninth inning, the game continues until one side is ahead at the end of an extra inning, or half inning in case the home team is ahead.

SKILLS

Baseball scouts and coaches check a player's potential ability primarily by three items: speed in running, power of the throwing arm, and ability to hit. Though these are largely dependent upon "natural" abilities, other basic skills can be learned if you practice faithfully.

Pitching

A good pitcher basically needs control and a fast ball. A curve and a change of pace delivery also are desirable. Control is gained by throwing at a target from a legal pitcher's stance time and time again. Merely hitting the strike zone is not enough. Working the corners by pitching within a few inches of a target is necessary. Throwing to a batter's weakness may not strike him out, but it should result in a weak grounder or a pop-up.

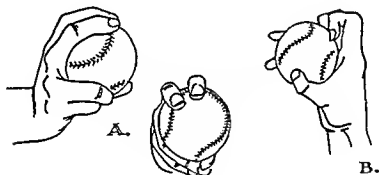


Fig. 2. Some Grips

Physically, a pitcher relies upon his feet, legs, trunk, and arm to throw the ball. He uses his head to tell him how and where to throw. Proper footwork is important since over- or understriding and turning the feet incorrectly may result in loss of speed and control.

The right grip on the ball is important for the various pitches. Most deliveries are made with the two first fingers slightly separated and the thumb on the opposite side. Curves are made by turning the wrist inward or outward to impart a spin on the ball.



Fig. 3 Catching the Ball

The change of pace is made in various ways. Generally, a pitcher depends upon a looser grip on the ball and less power. Palming the ball or grasping it with the knuckles or fingernails are other ways. A good pitcher will make these odd variations seem like regular pitches.

Catching

Proper placement of the hands in catching a ball can become a habit if these rules are followed. Balls above the chest should be caught with the elbows bent and the palms facing the ball with the thumbs toward each other, fingers up. A catch below the chest should be made with the arms extended downward and outward, the little fingers together, and the fingers pointing down (Fig. 3).

Get in front of the ball on grounders and flies alike. Then if you miss the ball, you can block it with your body. Move quickly if the ball changes direction. Keep your eye on the ball and follow it into the glove. Reach out to meet the ball with relaxed arms and let them give a little to the momentum of the ball as you stop it and gain control.

When fielding grounders, bend at the waist and legs far enough to touch the tip of your glove to the ground even if the ball is

taking a big hop; try to keep your back parallel to the ground. Should the ball suddenly hug the ground, you can move the hand down to grasp it. You can raise up faster to meet a bad hop than you can bend down. Move the arms and not the body on bad bounces if the ball is not too far to reach. You can move your arms and hands much faster than you can your body. Go to meet the ball and take it just before or just after the hop. Outfielders often drop to one knee to keep the ball from getting under them.



Fig. 4. Fielding a Grounder

In fielding fly balls judge the spot; then get there fast and be waiting for the ball. Many spectacular catches are really just examples of poor calculation.

Throwing

All throws should be quick and accurate. The straightest throw is the overhand, but often a player must throw quickly from the position in which he fields the ball. This can be done by a side or underarm throw. If the distance is close, such as near a base, use a quick underhand toss. In any throw, step in the direction you intend to throw. Outfielders rarely use any but the overhand throw.

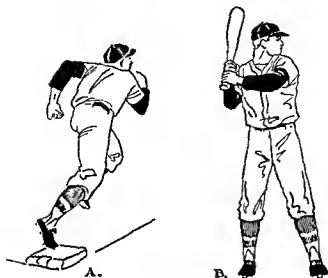


Fig. 5.

Hitting

Your object is to hit the ball safely. Keep your eye on it until the bat strikes it. Stand in a comfortable position where you can reach any ball that might be in the strike zone. Learn to swing only at good pitches. Don't try to outguess the pitcher. Instead, study the pitcher's delivery before your turn at bat. Hit the ball in front of the plate, not over it. As you swing, step toward the ball, pulling away from an inside pitch and leaning toward an outside one. Take a short controlled step, shifting the weight from the rear foot to the front, as you stride to meet the ball. Use a level swing and keep the elbows away from the body. Aim to meet the ball squarely and drive it through the center fielder rather than over his head. Stand steady in the box and move only to meet the ball after the pitcher starts his delivery. After two strikes, it is safer to choke up on the bat and just meet the ball.

Bunting

Bunting is used to get on base or as a sacrifice to advance men already on base. The object of the sacrifice is to lay the ball down safely in fair territory so that runners may advance. Turn to face the pitcher as he starts the delivery; hold the bat loosely in front of you, level, with arms extended and hands separated, the upper hand close to the trade-mark; let the ball hit the bat and deflect either down first or third base line; then, and then only, take off for first base.

The bunter trying for a base hit shifts his feet as little as possible and starts for the base almost simultaneously with the bunt.



Fig. 6.

Base Running

"Heads-up" base running may determine the winner of a close game. Watch for signals from the base coach. Start your turn before you hit a base, and don't circle out too far from the base path. Touch the bag on the inside corner with whichever foot is convenient. Touch every base. When on base, watch the pitcher's feet; they will reveal where he will throw before his head turns. When advancing from one base to the next base, use a cross-over start (Fig. 5A).

Sliding

Start the slide early enough to avoid hitting the bag too hard. Slide away from the ball and hook the bag with the top foot. Although a bit more dangerous, the headfirst slide is easy to learn and is recommended for players with bad legs, trick knees, or weak ankles. Sliding should first be practiced in soft shoes or in a sawdust pit. If you start a slide, never change your mind—go ahead and slide or you may get hurt.

STRATEGY

Certain situations in a ball game call for planning and cooperation on the part of the team. The way in which the offensive or defensive team plans and makes a play is called strategy.

The strategy often used by teams with a strong hitting power is to play for the big inning in which they hope to score enough runs to win the game. Other teams use what is frequently called "inside baseball" or "percentage ball." This means playing every inning for all that it is worth and making the most of each opportunity and run scored. Teams depending upon the latter strategy rely upon the bunt, "the hit and run," "the squeeze," and "steals" to keep the defense on its toes.

The execution of the sacrifice bunt has already been mentioned and is normally used when runners are on first or second and there are no outs. The bunt is used to get men into scoring position and to lessen the possibility of a double play. The batter bunts only if the pitch is good, and the base runner goes only if the ball is hit.

The "Hit and Run" Play

A double burden is placed on the short stop and second baseman when first base is occupied. In addition to assuming a position to field the ball, they must also be able to prevent a steal. A runner on first starting with the pitch as if to steal second, may pull the second baseman over and allow the batter to drive the ball through that hole for a hit. In addition the man stealing second may be able to go to third by virtue of his

early start. This is the "hit and run" play. A truer name would be the "run and hit" play. To protect the runner the batter must swing at anything.

The "Squeeze" Play

Late in the game when a run is needed badly, and there is a man on third and less than two outs, a "squeeze play" may be in order. The runner goes with the pitch, and the batter must attempt to bunt the ball regardless of whether it is a good pitch or not. If he does not, the runner will probably be an easy out.

Stealing

Steals are executed when relatively fast runners are on base, or when the catcher has trouble throwing to bases. The runner may steal to get into scoring position, to get into position to score on a fly or passed ball, or take advantage of a napping defense. He may make his break on the pitch or delay his break and go when the catcher returns the ball to the pitcher. Occasionally two runners can advance on a direct or delayed double steal. There are many combinations of double steals, as you might well imagine.

Signals

Regardless of the skill of individual members of a team there must be team work for good strategy. In order for all to know just what is going on signals are used. They should be easily seen and understood but clever enough to baffle the other team.

The coach and the team agree on a set of signals for such plays as *steal*, *hit and run*, *squeeze*, and *bunt*. Body signals given by one of the coaches are the usual method. Examples of such signals are hands on hips, arms folded across the chest, left hand touching the right knee, and so forth.

Position Play

During these offensive plays the defense is attempting to prevent their completion. It is important, then, that each man knows just where to play during crucial situations. Normally, the first and third basemen play close in during a bunt situation

with the second baseman covering first and the shortstop covering second. If a man is on first only, the catcher covers third when the third baseman has to make the play. If men are on first and second, the third baseman must protect his own base. The pitcher helps him cover part of his bunting territory.

In addition to the above plays each defensive man must know where and when to back up throws, to act as relay man, or to serve as a cut-off man. A good defensive player will think ahead of each play situation so that there is no hesitation during any play that may develop.

Batting Order

Arranging the batting order so that each man can contribute in his own way is also a part of offensive strategy. Many coaches follow this batting order plan: No. 1 batter, a man with ingenuity and a keen eye who can get on base one way or another; No. 2, a good hit and run man who can also bunt; No. 3, the best hitter; No. 4, a good long-ball hitter; No. 5, a long-ball but fair hitter; No. 6, the second lead-off man; No. 7, the second best hit and run man; No. 8, a poor hitter; No. 9, the poorest hitter—often the pitcher.

II. SOFTBALL

The game of softball was adapted from our national game of baseball by playground leaders and physical education instructors for indoor and playground use. A larger and softer ball was used, and the dimensions of the diamond were reduced.

During the depression days of the early 1930's adults had more time on their hands; so they picked up playground ball as played by the children and organized their own teams. Many different sets of rules, and playing field dimensions, were used at this stage.

Early playground successes in Chicago suggested the idea of a National Tournament at the 1933 World's Fair. The numerous sets of rules made its completion very difficult; so in 1934 the Amateur Softball Association was founded to standardize

the rules and make them the same for boys and girls. The growth of softball since that time has been phenomenal. Young and old, men and women, boys and girls, alike play it.

DIFFERENCE FROM BASEBALL

With a few exceptions softball is played the same as regulation baseball. The bases are 60 feet apart, and the pitching distance is 46 feet for men and 38 feet for women. The bat is smaller, but the ball is larger and softer than a baseball. Since bases are closer, runners cannot lead-off base, but can only leave when the ball leaves the pitcher's hand. Also, since the pitcher is closer, he must pitch underhand with the added rule that his wrist be no further away from his body than his elbow when the wrist passes below the hip. Seven innings constitute a regulation game. There are other minor differences, but they do not materially change the game.

BASIC SKILLS

The following basic skills are essential in playing softball: batting, catching, fielding, running, and throwing. Batting and baserunning are considered offensive tactics in playing. Catching, fielding, and throwing are the defensive tactics. The skills that follow are described for the right-handed player.

Batting

In batting, practice and drill are essential for developing timing, a level swing, and a "batting eye." It is seldom that two players will use identical batting techniques.

Whenever possible, use a bat which feels comfortable to swing. This involves the weight and length of the bat and the size of the grip in relation to the size of your hands.

While waiting for the pitcher to deliver the ball, hold the bat with a firm but relaxed grip. The left hand should be near the end of the bat with the right hand above and close to the left hand. Hold the bat back and up by the right shoulder (See Fig. 5B).

You should stand in a comfortable position facing home plate. Turn your head toward the pitcher so that you can look directly at the oncoming ball. Remember to "watch the ball" as it is released by the pitcher and "step into" your swing with your left foot.

Bring the bat around in a line with the pitched ball and hit the ball. Finish your swing with a follow through over your left shoulder. Step toward first base with the right foot and run.

Base Running

The following suggestions will help improve your base running: 1) watch the ball and advance additional bases whenever possible (that is, when four balls are called on the batter, on a throwback from catcher to pitcher, and on any poorly thrown ball); 2) avoid wide turns when rounding a base; 3) run on any hit ball when there are two outs; 4) lead off after each pitch and advance if possible; 5) run along the foul territory side of the line from 3rd base to home to avoid being hit by a fairly batted ball; 6) know the number of outs, inning, score, and count on the batter; and 7) avoid interfering with a player fielding a ball.

One of the most advanced elements of base running is the slide. Sliding is recommended only in advanced play and on suitable play surfaces such as grass and soft dirt. The skill of sliding is described in the section on baseball.

Throwing

The basic types of throws which you need to know are the overhand, underhand, and sidearm throw. The overhand snap and underhand whip throws are advanced techniques and are variations of these basic throws.

Regardless of the type of throw you use, it is important that you: 1) grip the ball with the first and second fingers on top of the ball and with the thumb under the ball; 2) on the wind-up, rotate the body by turning the left side toward the direction of the throw; 3) rotate your body as you transfer the weight from the right to left foot; 4) release the ball with the fingers pointing



Fig. 7. Pitching (Softball)

toward the target; and 5) follow through with the arm in the direction of the target.

The one thing that is different for each type of throw is the position of the palm of the hand as the ball is released. In the overhand throw the palm faces down, in the underhand throw the palm faces up, and in the sidearm throw the palm faces the body.

Since the ball can be thrown farther with the overhand throw, it should be used by catchers and outfielders; however, all players can use this more easily controlled and accurate throw when they have sufficient time to make a play. The sidearm throw is generally used by the infield players when they need to hurry a throw to a baseman. When passing the ball a short distance to a teammate, use an underhand throw. The underhand throw is also used by the pitcher.

Pitching

As a pitcher, learn how 1) to grip the ball, 2) to execute different wind-ups, 3) to release the ball, 4) to control the pitch, 5) to pitch the ball so that it cuts the corners, and 6) to be ready to field a batted ball.

In making a legal pitch you must assume a starting position

with the ball held in both hands in front of your body and with both feet touching the pitcher's plate. In delivering the ball, keep your wrist closer to your body than the elbow when swinging the arm forward to release the ball. Use an underhand motion in releasing the ball. Take only one step toward the batter as the ball is released.

Catching and Fielding

In catching and fielding, you must gain possession and/or retain the ball in order to put out a batter or baserunner. In performing this skill you should: 1) watch the ball, 2) keep your body in front of the ball, 3) relax, and "give" with your hands as the ball is caught. Although there are some variations, the same general method for catching a ball is used for both baseball and softball players, and other suggestions will be found in the section on baseball.

If you wish to improve your catching and fielding ability remember these things: 1) watch the ball; 2) use two hands whenever possible; 3) move to get in line with a ball batted toward your position; 4) face, if possible, toward home plate when catching a fly ball; 5) call for the ball, on a batted ball, that could be caught by more than one player; 6) as a baseman, be alert to move quickly to catch a poorly-thrown ball even to the extent of leaving your base; 7) as an infielder, field a bouncing ball either as it leaves the ground or near the height of the bounce; and 8) as an outfielder, use your leg or body to block a rolling ball if you cannot reach it with your hands.

POSITION PLAY AND STRATEGY

Position play for softball is much the same as that described for baseball. It is a good policy for teammates to talk with one another in working as an effective team unit. Being able to bat, run, catch, and throw is fun. Out-guessing your opponents adds to that enjoyment.

The strategy described for baseball is the same as that used by advanced softball players. The following hints on strategy will be helpful for less experienced players.

ELEMENTARY STRATEGY

1. As a member of the team in the field, always play for "one sure out."
2. As a baserunner, take time to touch all the bases.
3. As a baserunner, when the ball is poorly thrown, run to the next base if time permits.
4. As a baseman or fielder, do not throw the ball to a base after the runner is there.
5. As a member of the team in field, catch the ball securely before trying to throw it.
6. As a fielder, "call for the ball" when a fly ball could be caught by more than one player.
7. As an outfielder, after fielding the ball, throw the ball to an infield player as quickly as possible.

INTERMEDIATE STRATEGY

1. As a batter, when a base on balls occurs, continue, if possible, on to second base.
2. As a baseman, when a base on balls occurs, be ready to prevent the runner from advancing another base.
3. As a batter, risk a called strike when you have a 3 and 0 count.
4. As a fielder, know the position of the baserunners and the score. Make up your mind in advance what you should do before the ball is hit to you.
5. As a baserunner, before two are out, leave the base after the ball is released by the pitcher, but stay near the base when a fly ball is hit to the outfield. Return to your base if the fly ball is caught and if there is time after the catch, run to the next base. A runner on third base should stay on the base and run after the ball is caught.
6. As a baserunner, when there are two out, run when the batter hits the ball.
7. As a fielder, if possible work for a double play, but remember—always get "one sure out."
8. As catcher, batter, or first baseman, know what to do on the third strike.

ADVANCED STRATEGY

1. As a batter, use the sacrifice-bunt play to advance a runner.
2. As a batter, use the base-hit bunt to get on base, and/or to score a run.
3. As a batter or baserunner, use the hit and run play.
4. As an outfielder, generally throw a batted ball to the base ahead of the runner nearest home base.
5. As a member of the team in the field, move to "back-up" a teammate on each throw or batted ball.
6. As a baserunner on first base in the early part of the game, try to steal second base to determine the throwing ability and alertness of the catcher.
7. As a baserunner, watch the base coach.
8. As a base coach, talk and/or signal to tell the runner to slide, stand up, stop at the base, or continue for additional bases.

SPORTSMANSHIP

Courtesy and sportsmanship are as much a part of baseball and softball as are the rules. If in doubt follow the Golden Rule—"Do unto others as you would have them do unto you." We all like to win, but more important than winning is how we play the game. Be a good loser and a modest winner.

Never intentionally make a play that might injure an opponent or act in such a manner that might cause him to react in a way that will hurt him. Give encouragement to your teammates, and do not ridicule your opponents.

Know your place in the batting order and have your bat selected before it is time for you to bat. Don't delay the game by having to be paged when it is your turn to bat.

A good umpire is impartial. If a decision goes against you, remember he called it as he saw it. Any mistake that he might make is still official; you can protest but his judgment is final. The rules state that no abusive language shall be used toward your opponent, the umpire, or the fans. Remember this. Play hard and be a good sport.

SAFETY

The best equipment in the world cannot keep you from injury if you do not use good judgment and observe safety precautions. Be sure the playing area is free from hazards, such as, broken glass, sharp stones, holes, barbed wire, poles, and slick places. Good equipment can protect you only if it is worn properly. Shoes too large may trip a runner. The catcher's body protector must cover the collar bones, and the mask should fit snugly so that it will not hang down and blind him.

If you have trouble holding on to a bat try taping the handle, using rosin, or using a bat with a large end. Never throw the bat when you have hit the ball. Drop it to the ground as you start to run.

Start the season and each game with a slow warm-up of the legs, back, and arms. Wear a sweater or a jacket if necessary to keep from getting chilled while waiting for your turn at bat. Unless it is very warm, the pitcher should wear a jacket when not pitching or batting.

To avoid accidents, keep the players' benches and equipment not in use away from the playing area. During warm-up practice keep all balls going the same direction. Always watch the ball and bat to avoid being hit.

Treat all cuts and abrasions as soon as possible. Learn the basic skills properly—catching the ball, making the tag, running the bases, and sliding. Above all, keep your eye on the ball.

SELECTION AND CARE OF EQUIPMENT

The best advice on the selection of equipment in both baseball and softball is to buy good merchandise. It is cheaper in the long run since it will last longer, give better service, and enable you to perform more skillfully. Any reputable sporting goods store can supply you.

The stamp *Official* on equipment refers only to size and weight and does not certify quality. Pick the type that will help you play best.

A bat should be selected because of its balance for you. Don't worry about the length or weight if it feels right. Use it only to hit balls—never rocks. Bats with a close, narrow, straight grain are more alive and harder to break. Store it in an upright position not exposed to excessive drying or moisture.

For softball it is desirable for all players to wear a glove and the catcher and first baseman may use a mitt. Cowhide gloves, though more expensive, are more pliable than others. The horsehide glove will last longer, but it is a bit more stiff. Never over-oil a glove, but keep the pocket greased. Sitting on a glove may flatten the pocket and padding. Allow a wet or damp glove to dry naturally and then re-oil it.

Catchers must have the best of protection. They should get the best gear they can afford and be sure it covers them. The bar mask is lighter than the wire one and offers equal protection and costs the same.

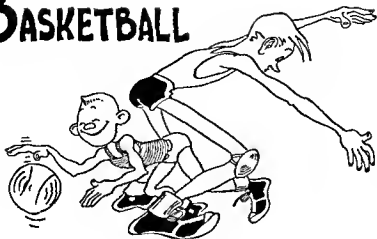
Kangaroo leather shoes last longer, are lighter, yet are expensive. Selected calf skin or cowhide shoes are heavy but they take skuffing better and are a little less expensive. Allow damp shoes to dry naturally and use a leather preservative to keep them soft.

The most serviceable uniform is probably the 50% wool and 50% cotton fabric. Occasional washings and mending will help it give long and useful service. As a precaution against injuries and infections, girls should wear knickers, slacks, or jeans and not shorts when playing softball. For sliding, sliding pads are advisable. These can be improvised with toweling or quilted padding.

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BASKETBALL



Basketball is truly a great American game. It was invented by an American, developed to greatness in the United States, and became famous all over the world—all in a few short years.

More high school boys and girls participate in basketball than in any other high school sport. Also more high school boys and girls are spectators at basketball games than watch any other school sport. For this reason it is important that you understand both the boys and girls game. The games have much in common but there are significant differences.

HOW IT BEGAN

In 1891, a Springfield, Massachusetts, YMCA leader, Dr. James Naismith, invented basketball to provide an indoor winter game for athletes. Peach baskets were used for goals, and so the game got its name.

At first a soccer ball was used and players advanced the ball down the floor by rolling it. Later a special ball and the dribble were introduced.

In the beginning any number of players from nine to fifty could play; but within two years the number was limited to nine, then to seven, and, in 1894, to five, which became the standard number in the boys game.

As the game became popular, many variations of rules developed. In 1933 the men's rules were standardized by a newly-formed National Basketball Committee of the United States and Canada. Using these rules as a base, the Basketball Committee of the National Federation of State High School Athletic Associations adapts and publishes the rules for high school boys.

The first girls game was played in March 1892. Dr. Naismith taught the group at the request of some women teachers in Springfield, Massachusetts. The men's rules were modified for the protection of the health and safety of girls, who do not possess the strength, speed, and ruggedness required for the boys game.

A women's rules committee was appointed in 1899. This committee was the parent of the long line of Basketball Committees of the Division for Girls and Women's Sports, which makes and publishes basketball rules for girls and women.

The original girls game called for five to nine players. Two types of courts were used in the past: the two-court game and the three-court game with either six or nine players. The two-court game with six players became the official one in 1938.

THE GAME FOR BOYS

The playing area is called the court. The five players are designated center, right forward, left forward, right guard, and left guard. The court diagram and the positions of the players at the start of a game are shown in Figure 1.

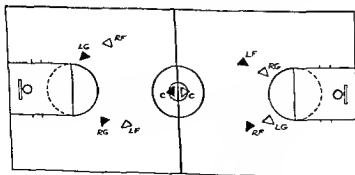


Fig 1. The Court and Position of Players (Boys)

Play begins by the referee tossing up the ball in the center circle between the two centers who jump to hit it to a teammate. The players advance the ball down the court by dribbling or passing until one is in a position to toss the ball through the opponents' basket. The defensive team tries to prevent scoring by the opposition and to secure possession of the ball. As soon as the defensive team gains possession of the ball, they advance it down the floor and attempt to score.

Points are made by two methods: two points are scored if the ball goes through the goal when thrown from the field (*field goal*), and one point is scored for a successful free throw. The object of the game is to score more points than the opponents during the playing time. The game for high school boys is played in four quarters of eight minutes each. If the score is tied at the end of the game, one or more extra periods are played.

In general, two types of defense are used: man-for-man and zone. In man-for-man defense you have the responsibility for guarding a particular player on the opposing team. In zone defense you are responsible for guarding any player entering your area of the floor.

Violations and Fouls

The rules establish legal procedures for the offense and the defense. An infraction of the rule is either a violation or a foul. Some examples of violations are: causing the ball to go out of bounds, failure of the offense to bring the ball across the center line within 10 seconds, dribbling a second time, and running with the ball. If you commit a violation, the ball is awarded to the opponents' out-of-bounds on the sideline near where the violation occurs.

There are two types of fouls: technical fouls and personal fouls. Some technical fouls are delaying the game, taking too many time-outs, leaving the court without permission, using unsportsmanlike tactics, and failure to report to the officials when entering the game as a substitute. Personal fouls are holding, pushing or charging, blocking, illegal use of hands, and impeding the progress of a player by extended arm or leg. In general, if you commit a

foul, a free throw is awarded to the opponents. If you foul a player when he is in the act of shooting for a goal, he is awarded one free throw if the goal is made and two free throws if the goal is missed. Two free throws may be awarded if the referee considers a foul a flagrant or intentional one. After a team commits four fouls in a half, an extra free throw is awarded, if the first is successful, as penalty for the common personal foul. In a personal foul the player fouled is the one who must attempt the free throw, if physically able, while any player may shoot a technical foul.

After a goal or a free throw has been scored, the ball is put in play from behind the end line by a member of the team that did not make the score. At the beginning of each quarter and of extra playing periods and after a double foul, the ball is put in play by a jump ball in the center circle. When two opposing players have possession of the ball, it is a *held ball*, and the ball is put in play by a jump ball at the nearest circle.

THE GAME FOR GIRLS

The playing court for the girls game is the same as that for boys. However, the team consists of six players: right, center, and left forwards; and right, center, and left guards. These players in position for the start of the game are shown in figure 2.

There are three basic differences between the girls game and boys game, due to the half-court, guarding, and dribbling rules.

The center line divides the court into two separate playing areas, the guards playing in one area against the opposing forwards, and the forwards playing in the other half-court against the opposing guards. It is a violation when a player crosses the center line except when instructed to do so by an official to participate in a jump ball or when she takes the center throw. The player must then return to her own half of the court before she can play the ball again.

The guarding rule is probably the most significant difference between the girls and boys games. It is intended to lessen personal contact and roughness. You may only tie a ball that is in your opponent's possession by placing *both* hands firmly around the ball. You may put one or both hands on it at the same time your

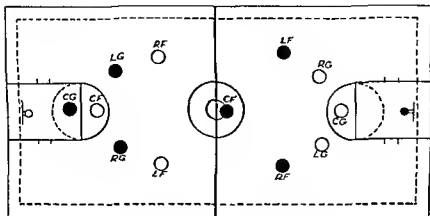


Fig. 2. The Court and Position of Players (Girls)

opponent does. If you are unsuccessful in tying the ball, you must then try to deflect or intercept the pass which follows.

To offset this limitation of defense it is necessary to have two rules which tend to limit the offense. These are the limited dribble and the three-second rule.

In advancing the ball down the court, you may bounce the ball once or you may use the *limited dribble*. In the limited dribble you are allowed to bounce the ball twice, the first time with one or both hands, the second time with only one hand. On the second bounce you may then let the ball come to rest in either one or both hands, shoot for goal, or pass or direct it towards another player. If you are a quick and agile player, this is not such a great limitation in advancing the ball down the court. The rule does not refer to the number of times the ball may bounce, but only to the number of times you are permitted to bounce it.

The three-second rule requires that you must pass, dribble, or shoot the ball within three seconds after receiving it. This rule makes it necessary for you to be alert to openings for passes and also helps limit stalling by a player.

Because of the two-division game, only forwards can score. While it might be physically possible for a guard to shoot a long shot from the other end of the floor, this is not allowed under the rules. A forward who is fouled must take her own free throw

unless she is injured or disqualified in which case her substitute takes the free throw. When a guard is fouled any forward may take the free throw.

At the beginning of each quarter the ball is put in play by a center throw. Any forward of the team which is to take the center throw enters the center circle, and the official tosses the ball to her, after which the ball is in play. No other player may enter the 6-foot circle, and the forward may not travel within or step on the 2-foot circle, until after she has released the ball.

The captains decide which team shall have the first center throw as a result of the toss of a coin before the game starts. The captain winning the toss has her choice of goal or first center throw. In the following quarters the center throw alternates.

After a field-goal score the ball is put in play at the center circle with a center throw by a forward of the team scored on. This is in contrast to the boys game where the ball is put in play from behind the end line. After a double foul the ball is put in play by a jump ball at the center circle.

In the girls game the players line up along the free-throw lane on a free throw, just as the boys do. However, the ball is dead if the free throw is made. The ball is then put in play from out-of-bounds at the side line opposite the free-throw line. This out-of-bounds throw must be taken by the forward who took the free throw. If the basket is missed on the try for a free throw the ball remains in play.

The 3-second limitation of offensive players in the key-hole is used by the girls but the 10-second rule on bringing the ball across the center line from the back court is not included in the rules for girls.

Fouls

Blocking, charging, guarding with personal contact, obstruction, tagging, and unnecessary roughness are individual fouls. Other individual fouls are overguarding the ball, snatching or batting the ball from the hands of an opposing player, boxing-up, delaying the game, and unsportsmanlike conduct. The penalty

for a foul is a free throw for the opponents. If a forward is fouled in the act of shooting and misses the goal, she is awarded two free throws.

These individual fouls are charged against the player responsible for them, and when a player has committed five fouls, she is disqualified and must leave the game. A player may be disqualified for a single foul of unsportsmanlike conduct.

There are also team fouls, such as failing to provide scorers with the names and numbers of players, more than the legal number of time outs, and coaching from the side lines. A team is disqualified and must default the game if five technical team fouls have been committed.

Violations are less serious infractions of the rules and are generally caused by incorrect methods of advancing the ball, such as traveling, holding the ball too long, kicking the ball, and stepping on a side line or on or over the center division line. The penalty for a violation is an out-of-bounds play awarded to the opposing team at the side line near where the violation occurred.

OFFICIALS

The game of basketball is officiated by a referee and an umpire. Two scorers and two timers assist them. A good official must know the rules thoroughly, know his or her duties as referee or umpire in administering the game, be quick and agile, and impartial in all decisions. An official should also merit and command the respect of the players. You might start learning to be a basketball official in your physical education class. Ask your teacher to help you. Both players and officials need to study the official rules each year because from time to time changes in the rules are made.

BASIC SKILLS FOR BOYS AND GIRLS

Advanced skills, such as the hook shot, make your play more versatile, but you can play very well without them. Basic skills are essential. Ball control, speed, accuracy, and footwork depend on them. That is why your coach or teacher spends so much time in drill. Another method for improving a skill is to study

a picture of it, and then practice the skill on the court. Almost all the skills you need are illustrated in this chapter. In each picture, study: 1) the starting position of all parts of the body and the ball, 2) the movement or action, and, 3) the position or follow-through after the action is completed. It is important to note when the body weight is transferred from one foot to the other.

In catching the ball a player should keep his eyes on the ball. The fingers should be relaxed with the hands forming a cup. The fingers should be spread and the ball should be met first with the finger tips and then the force of the pass should be allowed to come on the palm of the hand. The hands and arms give slightly on the impact of the ball and the arms should be placed immediately into position for a shot, drive, or pass.

Shooting

Shooting is the most emphasized skill in modern basketball. The latest and most useful type of shot is called the jump-shot. It gets its name from the fact that a player jumps off the floor before shooting the ball.

The jump-shot can be executed from either a running or standing position. It is difficult for your opponent to anticipate it and almost impossible to guard. To make an accurate shot you need balance, coordination, and a clear view of the target.

In executing the jump-shot from a running position, come to a quick stop and jump high into the air and bring the ball overhead with your shooting hand behind and under it. At the peak of the jump, when the body is no longer moving upward, release the ball as shown in Figure 4.

Keep your eyes focused on the front rim of the basket and release the ball with finger and wrist action rather than arm movement. Try to put as much arch as possible on the ball and follow through with wrist and arm.

Other basic shots in basketball include the two-hand set shot, the one-hand set, lay-up, and free throw.

Figure 5 shows the two-handed set shot. Hold the ball about chest high. Keep your feet about the width of your shoulders. The

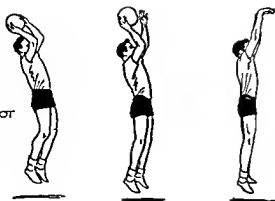
*THE
JUMP SHOT*

Fig. 4

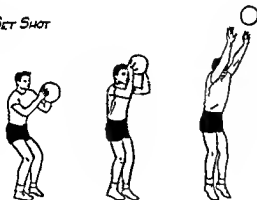
TWO-HAND SET SHOT

Fig. 5

left or right foot may be slightly advanced, but it is recommended that the feet be kept in a straight line. Bend the knees and bring the ball upward and outward, releasing it with strong wrist action and fingertip control. As your arms and legs straighten your feet come off the floor slightly; follow through with fingers and arms.

The one-hand set shot is shown in Figure 6. Support the ball with your left hand (if right-handed) holding the back and bottom with your shooting hand. Push upward and outward, releasing the ball off the ends of your fingers with strong wrist action and follow through with fingers and arms. It is important to keep the body well balanced and the eyes focused on the basket. As a usual thing, keep your right foot slightly advanced when using the one-hand set shot.

ONE-HAND SET SHOT

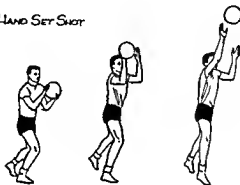


Fig. 6

The lay-up is used when a player is running at the basket and is executed from a leap that carries the shooter beneath the backboard. Figure 7 shows a player taking off on the correct foot (opposite shooting hand) and releasing the ball at the top of the vertical jump. When shooting from the side, lay the ball gently against the backboard so that it will drop through the basket. When shooting from the front of the basket also try to play the ball against the backboard.

Harry Combes, who coached championship basketball teams at the University of Illinois, recommends the two-hand underhand shot for free throwing. He describes the shot (Figure 8) as follows:

"Spread the legs on the foul line, extending the ball straight

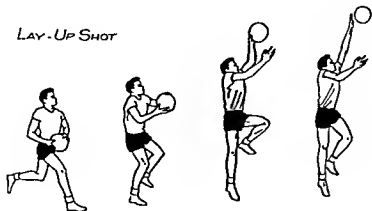
LAY-UP SHOT

Fig. 7

out. Now carry the ball down between the legs, turning the wrists slightly so that the thumbs point down. Bring the ball forward and upward, releasing it with full extension of arms. Don't try to put spin on the ball. Let the spin take care of itself." Be sure to hold the follow through of the arms until the ball goes through the basket. Also keep your eyes focused on the rim and do not follow the flight of the ball.

Other top coaches recommend one-hand set shots for free throwing.

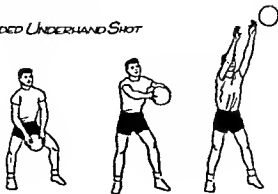
TWO-HANDED UNDERHAND SHOT

Fig. 8

Passing

Three basic passes, with variations, can be used to get the basketball from one player to another—the two-hand chest pass (Fig. 9), the overhead pass (Fig. 10), and the baseball pass (Fig. 11). One and two-hand underhand passes also can be used.

The important thing to remember when throwing a basketball is to grip it with your fingers, not the palm of your hand. Learn to release the ball with vigorous wrist-snap.

TWO-HANDED CHEST PASS

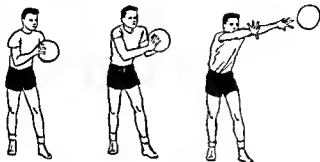


Fig. 9

OVERHEAD PASS

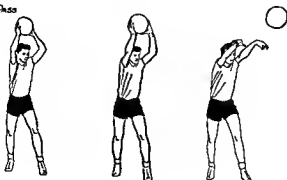


Fig 10

BASEBALL PASS

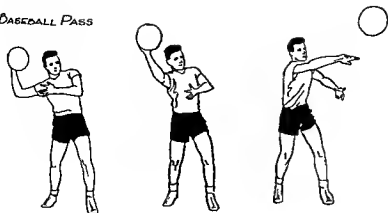


Fig. 11

Dribbling

Individual players are allowed to move the ball from place to place on the court by dribbling (bouncing it). Figure 12 illustrates dribbling. Keep the following in mind: Head up . . . body low . . . ball well out in front where it is easily controlled . . . fingers spread, hands relaxed . . . *push*—do not bat the ball . . . control with the fingers . . . keep the ball below waist.

STRATEGY

Ability to use any part of your body, especially your eyes, to cause an opponent to think you are making a move other than what you plan is important if you want to become a good basketball player. Another important ability—fast change of direction—requires a great deal of practice. Offensively, you must be constantly maneuvering either with or without the ball.

At all times your body must be balanced and directly over your feet. On offense you must combine your movement and change of direction with abrupt stops. Your feet may be planted at one time in a jump stop or in a stride with one foot ahead of the other. In either case the weight must be back over the feet, hips down, and head up. From either of these stops a pivot on one foot may be made.

On defense your feet must be spread, one slightly forward,

weight equally divided on the balls of the feet, and heels on the floor. The raised forward hand should correspond with the forward leg, the opposite hand and arm should be raised sideward. Never allow an opponent to draw you off balance, and avoid crossing your legs when moving unless it is necessary to make a quick drive.

TIPS ON INDIVIDUAL OFFENSE

1. Shoot only when you have a good chance to score.
2. Always watch the ball, either directly or out of the corner of your eye.
3. Make quick stops and starts. Keep on the move.
4. Don't throw too hard when close to the receiver. Be sure a teammate is "open" before throwing him the ball. Learn to pass when in motion.
5. Remember, it takes a team to win a game, and you are only one of them. Teamwork is all-important in basketball.

TIPS ON INDIVIDUAL DEFENSE

1. Study your opponent. Find out if he is fast or slow, if he is shifty, and if he has favorite stunts and shots.
2. Always stay between your man and the basket. If he is a long way from it, give him more room; if he is close to it, stick to him like glue.
3. Never turn your head away from your man.
4. Watch for feints. Don't charge him. Keep your balance.
5. If he is dribbling, move with him, slapping at the ball, always keeping between him and the basket.
6. Get a rebounding position on your man if he or one of his teammates takes a shot. Keep inside him; box him out from the basket.
7. Talk to your teammates; warn them of offensive maneuvers.
8. When playing zone defense, get to your area as quickly as possible and keep your eyes on the ball at all times. Keep your hands and arms up and moving.
9. Stay in a crouch, like a boxer, unless running full speed. Keep your balance and don't cross your legs when shuffling.

DRIBBLE

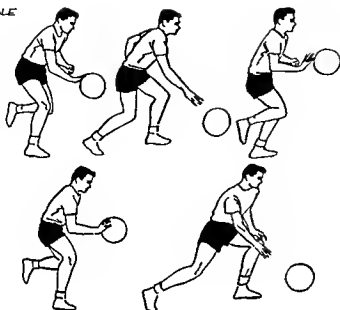


Fig. 12

Team Play

Basketball is a series of stops and starts: A team gains possession of the ball, stops its defense, starts its offense; then it loses possession, stops offense, starts defense, and so forth. When playing effectively, teams make such transitions quickly and efficiently.

The key to team strategy is possession of the ball. Teams having possession maneuver the ball by passing and dribbling it, attempting to get a shot at the basket. The team not in possession operates to prevent successful shots and attempts to regain possession of the ball.

Don't practice too many different plays. A few good plays completely mastered are better than fifty plays half learned.

When on defense your team has a choice of several styles of play. You can elect to play straight man-for-man, each player guarding a particular opponent, or you can use shifting man-for-

stalling, keep spread so the defense cannot double-team; keep the center lane open for drive-ins; and keep the ball and players moving and keep threatening to score.

COURTESY AND SPORTSMANSHIP

Courtesy and good sportsmanship are the same thing.

If your team has a reputation for friendliness and good sportsmanship, other teams will look forward to their games with you. The enjoyment of play and pleasant social relationships are important features of the game.

TIPS ON INDIVIDUAL EQUIPMENT

Your basketball costume should permit freedom of body action, especially in the shoulders and legs. Well-fitted shorts are preferable for both boys and girls. Wear a clean pair of heavy socks at each practice and at each game. Wool socks are best; some athletes wear cotton socks inside their wool socks. Socks should not be worn if they have holes. Boys often wear hip pads and should always wear a good athletic supporter. Basketball suits should be laundered often.

A crepe-soled or rubber-cupped shoe will enable you to stop or change direction quickly. Your shoes should fit perfectly and should have arch supports and thick cushion insoles. Saddle shoes are undesirable, for their smooth surfaces and heels may cause falls or turned ankles. An oxford-type tennis shoe or sneaker is suitable, but if your ankles are weak it is better to wear a high shoe.

SAFETY

A health examination before you participate in sports is your best assurance that you are physically fit for strenuous activity. Basketball is strenuous. You probably will travel a mile or more during a game and much of it at top speed. You should secure a doctor's certificate before returning to play after recovery from an illness or injury. The certificate tells you and your coach whether you are ready to play again without risking re-injury or damage to your health.

Skills in basketball techniques are essential safety measures, too. Your play is handicapped if you lack good coordination. Awkwardness may cause injury to yourself and others. Drills help you develop a higher degree of skill. They also enable you to warm-up gradually, so important in preventing injuries.

Jammed fingers can be avoided if you develop catching skill. Rings, watches, and other jewelry should not be worn because they may be damaged and are a hazard to other players. Your finger nails should be short.

If you wear glasses, wear guards, or better yet, secure unbreakable lenses the next time you are fitted for glasses. They are inexpensive and provide adequate protection without lessening vision. Glasses with unbreakable rims or contact lenses are also desirable for athletes.

After play is over, shower immediately to remove perspiration and cool off your body gradually.

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BOWLING



The oldest known form of bowling dates back to 5200 B. C., according to Sir Flinders Petrie in his book, *The Making of Egypt*. The contents of a grave of an Egyptian child buried in 5200 B. C. revealed implements for playing a game similar to our present sport of ten pins.

First record of bowling in America places the game in Manhattan in 1623. The settlers from Holland introduced the game in this country. Its popularity grew in New York City and a "bowling green" was in use in the area around Battery Fort, now lower Broadway. Many similar "bowling greens" appeared, and by 1840 many indoor bowling establishments existed in New York City.

9 PINS BECOME 10 PINS

At this time there were only 9 pins used in bowling and they were arranged in the shape of a diamond. Indoor tournaments were held in the Mid-19th Century and the game began to suffer from exploitation by gamblers. Laws were passed in New York and Connecticut which prohibited the game of nine pins, but some enterprising soul added a tenth pin to avoid the

law, and so originated the game of ten pins. It changed the pin setup from a diamond shaped arrangement to a triangular one.

In 1895 the American Bowling Congress was organized to set up universal laws for the game. This was the first American organization to set up rules and regulations governing bowling. More than any other group, this organization is responsible for the continued growth and expansion of bowling.

In 1916, the Woman's International Bowling Congress was organized in St. Louis, and this group has performed a similar service for ladies' bowling.

In 1927, the National Duck Pin Bowling Congress was formed and arranged for the first national tournament the following year.

In 1936, the American Junior Bowling Congress was organized in Chicago, and this organization now supervises and furnishes a nation-wide program for more than 250,000 boys and girls of elementary, junior, and senior high school, both in this country and Canada, the West Indies, and Germany.

Today bowling is America's most popular participant sport with some 25,000,000 men, women, and children of all ages and physical abilities bowling each year.

THE GAME

The American Bowling Congress rules state: "A game of American ten pins shall consist of ten frames. Each player shall bowl two balls in each of the first nine frames except when he shall make a strike. A player who scores a strike or spare in the tenth frame shall deliver three balls.

"A strike is recorded when the player completes a legal delivery and bowls down the full setup of ten pins on the first ball.

"Any player who bowls down all ten pins with a legally delivered second ball in any frame has scored a spare."

BASIC SKILLS

Perhaps the most basic requirement necessary to become an expert bowler is the ability to coordinate the movements of your hands, arms and shoulders with the movements of your hips, legs, and feet. This coordination aids greatly in delivering the

ball in exactly the same motion each time. Practice helps any bowler achieve this coordination and consistency which is necessary for high scoring. Learning the following basic skills will make bowling fun.

After you have selected a ball which fits the fingers comfortably and is not too heavy or too light, you are ready to assume a bowling position or stance. Next it is necessary to determine the number of steps you will take before delivering the ball down the alley. The recommended four-step approach will probably suit you best.

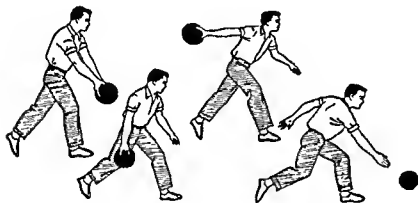


Fig. 1. The Four-Step Approach

Study Figure 1 and notice that the approach is started 12 to 15 feet from the foul line. Hold the ball at chest or waist level as you face the pins squarely. On your first step forward with a natural walking step, push the ball forward and down in a smooth motion. On the second step, which should be longer and faster, your arm continues to swing downward and to the rear in a pendulum-like motion. On your third step, which is longer and faster than the first two, the ball will be at the highest point of the backswing. Notice that your arm should be parallel to the floor—also that the opposite arm is forward for balance. The fourth and final step brings you up to the

foul line in a graceful slide. Notice that your left foot should be pointed at the foul line while the other foot drags behind the body to serve as a brake to check your slide. You should release the ball just above the floor and well out over the foul line. After the release your arm always should follow through toward the pins.

Types of Deliveries

There are two main types of deliveries used in bowling: the straight ball, and the hook. After trying each type use the one that suits you best.

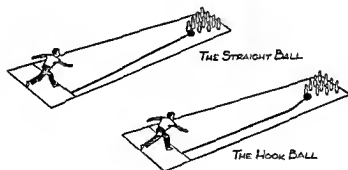


Fig. 2. Deliveries

The *straight ball* delivery is the one you should learn first. It goes straight to your mark, which is the 1-3 pocket. The ball is released on the final step of your approach about 6 inches from the right gutter. Your thumb should be pointing directly at the pins. When you release the ball, your thumb leaves its hole before the other fingers do, so that you can lay the ball on the alley rather than bounce it.

The *hook ball* travels in a straight line toward the 3 or 6 pin and then curves sharply into the 1-3 pocket. It is released on the foul line about 10 to 12 inches to the left of the right-hand

gutter. To deliver the hook, the ball is held with your thumb toward the body and the two fingers on the outside. First release the thumb, then the fingers, and give a slight uplift and left spin to your ball. You will find that this action gives a right to left hook with a minimum of left wrist turn. The hook ball is the best "working" ball, and gets the most pins when it is properly controlled.

Aiming

There are two common methods of aiming called "head-pin bowling" and "spot bowling."

If you use the head-pin method your eyes are concentrated on the 1-3 pocket throughout the approach, delivery, and follow-through.

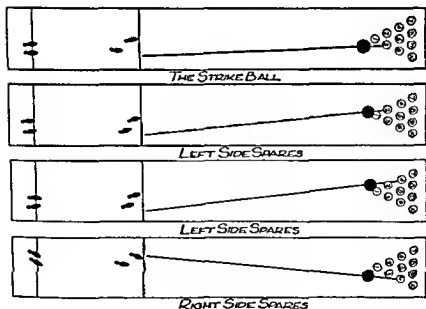


FIG. 3

If you prefer the spot method, used by a greater number of bowlers, the ball is rolled along an imaginary line to the 1-3 pocket. The place where the imaginary line crosses the foul line is noted and another spot 10 to 15 feet down the alley is concentrated on until your ball has crossed this spot. Remember not to look at the pins until the ball has crossed the spot you have selected.

Strikes and Spares

You will find that it takes practice to make *strikes* (knocking all pins down with the first ball), and *spares* (knocking all pins down with two balls). Success depends on how well you have learned the bowling fundamentals. By studying Figure 3, you can see how to make strikes and spares. Notice that angle shooting is used for spares. Keep in mind, however, that you use the same delivery on every bowl.

Tips to Help You

In practicing to improve your game keep these things in mind. 1. A consistent delivery is necessary; you must be able to deliver a ball in approximately the same motion time after time. 2. Use your natural speed. 3. Get the ball out in front of you before you release it. 4. Concentrate on each delivery. 5. Don't forget to follow through—finish correctly at the foul line. 6. Let your arm act as a pendulum. 7. Work on a normal backswing. 8. Relax and bowl easily; tense muscles cause jerkiness. 9. Work on good timing. 10. Use the correct angle when shooting for strikes or spares. 11. Keep your shoulders parallel to your target. 12. Keep your left foot pointed at your target as you approach the foul line. 13. Remember, control is more important than speed.

Scoring

You will enjoy learning to score a bowling game. It is easy. A perfect score is 300 points. A game consists of ten frames (a frame is similar to an inning in baseball). Two balls are rolled in each frame except when you score a strike. If you

knock down all the pins with the first ball, it is a strike, marked (X). If all the pins are knocked down with two balls of the frame, you score a spare, marked (/).

For a strike, you get 10 pins plus the total pinfall on the next two balls. For a spare, you get 10 pins, plus the pinfall on the next ball. If you make a strike in the tenth frame, you get two additional balls to be rolled immediately; if you make a spare in the tenth frame, you get one more ball.

Look at this score card (Fig. 4) of a complete game and assume it was yours. At the end of the 2nd frame, having made two strikes, you would have an X in each upper-right box but no numerical score. In the 3rd frame, you made a spare, bowling over 9 pins with your first ball and the single with your second ball. So now you put down 29 for the first frame (10 plus your pinfall on the next two balls) and 49 for the second frame (29 plus the strike in the 2nd frame plus the 9 for the first ball of the 3rd frame). Now see if you can figure out why you have the score you have in the seven remaining frames.

1	2	3	4	5	6	7	8	9	10
X	X	/	X	X	X	X			X X X
29	49	69	99	129	158	177	186	195	225

Fig. 4

COURTESY AND SPORTSMANSHIP

Every sport has a code of ethics and rules, and bowling, too, has its proper etiquette. Among the more important items to remember are the following:

1. Always observe the foul line, even in practice when there is no one to check you.
2. Don't mar alley approaches or any other equipment in the bowling establishment. Proprietors have invested thousands of dollars in this equipment, and common sense should dictate proper care of it.

3. When it is not your turn to bowl, remain on the bench. Don't distract others who are trying to concentrate on their bowling.

4. Confine your activities to the alley on which you are bowling. In other words, don't wander off onto another approach in an effort to put "body English" on the ball.

5. Give the bowler on your right preference at all times. Let him deliver his ball first before you take your stance on the approach.

6. Don't waste time between shots.

7. Observe common courtesy toward other bowlers at all times. Avoid shouting or loud talking or laughing when anyone else is bowling.

SELECTION AND CARE OF EQUIPMENT

One reason why many people begin bowling is that they do not need to purchase their own equipment in order to participate. You can go in any bowling alley in the country, rent a pair of bowling shoes, select a house ball provided without charge by the bowling establishment, and you are ready to bowl.

However, if you take up the game seriously and wish to improve your scoring, it is necessary to own your own bowling ball. In this way you can become accustomed to using the same ball each time you bowl. This will naturally help you perfect your game.

The most important feature of any bowling ball is the grip. Your local bowling proprietor or your local bowling store can measure you and fit you with a ball which has been drilled to meet your personal specifications. These bowling-equipment experts can make sure you don't get a ball which has too wide or too narrow a span. They can also make sure the thumb and finger holes are not too large or too small.

Secondly, a bowling-equipment expert can provide you with a ball which is the proper weight for you. Most normal adult men use a 16 pound ball, which is the maximum weight. Even many top women bowlers use a 16 pound ball. However, for

most women and for many smaller men and young bowlers, a somewhat lighter ball is recommended.

If you intend to do any amount of bowling at all, it is also recommended that you own your own pair of bowling shoes. Be certain your bowling shoes are comfortable enough so that your feet will not be pinched or cramped.

Once you own your own bowling ball and shoes, you must have something to carry them in, and a bowling bag is required. There are many styles of bowling bags with prices ranging from extremely inexpensive to moderately expensive.

SAFETY PRECAUTIONS

Bowling does not present many safety problems. Perhaps that is one reason many youngsters, as well as adults, can enjoy the game. However, bowlers should be careful in handling the bowling ball because it is possible to drop it on one's foot with very painful results.

In selecting your ball from the rack, be sure you pick it up with your hands on either side of the ball. Also do not place your hand between your ball and the next ball as you may suffer a mashed finger.

Before bowling on an alley, always test the approach to see whether you can slide properly. Conditions on approaches vary greatly from one establishment to another; and if you are in the habit of sliding on the approach, you may find conditions which would prevent this and consequently throw you off balance.

As a safety precaution for the pinboy, do not roll the ball on the alley until he is out of the pit.

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FIELD HOCKEY



Hockey is a very old game. The exact origin is not known, but there is reason to believe that a crude form of the game was played by the ancient Greeks, Romans, and Persians as early as 514 B. C. The modern game probably came from an early Scotch game "shinty"—also played in London under the name of "hackie." That the names well described the play is indicated by the rules which stated that "should a player come in on the wrong side as you were dribbling down, you were at liberty to hit him across the shins." The "weapons" were made of light oak often weighted with lead to give them greater driving power.

Today's game of hockey, however, is one of speed, skill, and wits with no personal contact allowed. The first evidence of women taking up the sport was the formation of teams in the women's college of Oxford and Cambridge in England in 1885. About 1900 an Englishwoman, Miss Constance Applebee, introduced the game to several colleges in this country. From that time on, hockey has grown in popularity with girls and women here. The United States Field Hockey Association was formed in 1921, and at the present time there are many affiliated clubs throughout the country, which enable players to continue enjoying hockey after they have graduated from school.

THE GAME

Hockey is played between two teams of eleven players each. There are five forwards: center forward, left and right inners, and left and right wings; and six defense players: center halfback, left and right halfbacks, left and right backs, and a goalkeeper. The field is about the size of a football field, but the goals are much smaller.

The object of the game is for the attacking forwards, aided by their defense, to hit the ball past the opposing defending players and into the goal (1 point) while, of course, the aim of the opposing defense is to get the ball and clear it out to their forwards. The stick has a long handle and a curved blade flat on one side. The ball may be hit with the flat side only and may not be advanced by any part of the player's body. The ball is a small leather-covered one.

To start the game, the teams line up as shown in Fig. 1.

Although the forwards stand facing each other, they are not each other's closest opponents. It is the defense player standing most nearly opposite a forward who has the responsibility for seeing to it that she does not get the ball. This is called *marking*.

The two center forwards face each other, standing squarely with one foot on either side of the center line. The ball is between them. On the umpire's whistle, they start to *bully* (Fig. 2). The bully is done by alternately touching the ground beside the ball and the opponent's stick three times. After the third touching of sticks both players may try to get possession of the ball. Once learned, the bully is usually done rather rapidly—ground, sticks—ground, sticks—ground sticks—hit!

After the ball is put in play by means of the bully, legally anyone may try to hit it. Actually the players remain in the general area of the field in which they started, progressing up and down the field but not across it. Players play the ball when it comes into their area, then pass it to a teammate in another area. The five forwards form the main attacking line and are followed and helped by their halfbacks and backs behind them. If they lose control of the ball, it is the duty of these players to recover it.

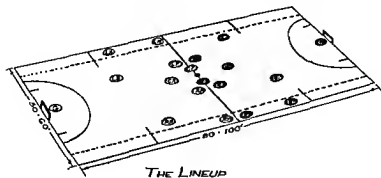


Fig 1

If all else fails, a team still has its well-padded goalie, who may not only hit but may also kick the ball.

INDIVIDUAL TACTICS

A player may hit the ball to another player, or she may take it down the field herself by means of a series of taps, sending the ball a short distance ahead of her. This is called *dribbling*. She may try to *dodge* around an opponent. She may also try to take the ball away from an opponent, using one of the *tackles* which will be discussed later.

To hold the stick correctly, place it in front of you with the toe of the blade facing away from you. Grasp the top of the stick in your left hand. If you raise the stick in the air, the blade will now point back over your head. Lower the stick again and place your right hand just below your left. Now you have a correct grip for the *drive* (Fig. 2). Place the ball in front of your right foot and hit it, using an easy arm and shoulder swing. Let your right elbow bend a little on the back swing so that you don't have to bend your wrists very much, and with the stick pointing in the direction the ball has gone. You may not raise your stick above the shoulder level, for this is the foul called *sticks* (Fig. 2).

What about you left-handers? You'll just have to learn to play right handed—left-handed sticks are not allowed.



Fig. 2

SOME RULES

Other rules made for safety's sake make it a foul to use personal contact or do *dangerous hitting*, such as slashing at or interfering with the opponent's stick, undercutting the ball so it goes into the air, or hitting it directly at an opponent's legs.

In keeping with the sportsmanlike spirit of the game is the rule of *obstruction*, which states that you may not go between an opponent and the ball. You must always give her a fair opportunity to get to it. If you always face your opponent when trying to get the ball from her, you will not commit this foul. Forwards, you may not go way down the field ahead of the ball to wait for it near the opponent's goal. You will probably be *offside*. Stay on a line with the rest of your forwards.

The penalty for making a foul is usually a free hit awarded to the other team on the spot where the foul occurred. This is an unguarded hit with all other players at least five yards away. A defense player nearly always takes the hit, and her forward line moves ahead to be ready to receive it.

STOPPING THE BALL

To stop a ball which has been hit to you, you should run to meet it with your stick pointing toward it (Fig. 3). Turn the flat side of the blade toward the ball just as you get to it and

reach with your left wrist leading. This will put the blade of the stick straight up and down, so the ball cannot hop over it (Fig. 3). "Give" with your wrist as you meet the ball, and if necessary slide your right hand down the stick a little to get more control. However, you will be able to hit the ball more quickly if you do not change your drive hand position too much. Always use your stick to stop the ball, not your foot or hand. The foot and hand stops are legal; but if you let the ball rebound the least bit, you have committed the foul called *advancing*.

DRIBBLING

When you have possession of the ball, the problem is what to do with it. If you wish to dribble, get the ball ahead of you and slightly to your right. Keeping your original grip on the stick, turn your wrists so that the blade of the stick facing away from you comes flat against the ball. Your left wrist is now in such a position that if you have a watch on it you can tell the time. You will probably find your ball control a little easier at first if you slide your right hand a little way down the stick as you did in stopping the ball. Now by wrist action propel the ball along just ahead and slightly to your right by a series of taps. The closer together you can keep your hands the better. Also keep as erect a position as you can when you run. Learn to dribble so that you alternately watch the ball and keep track of the position of other players. Always dribble straight down the field. If you want the ball to go across the field, pass it to a teammate in that part of the field.

PASSING

When you wish to drive or pass the ball to a teammate, be sure to bring your hands together at the top of the stick and let your right elbow bend a little. This is an arm and shoulder swing, not a wrist-action stroke. Passing to your left is easiest; do so when the ball is ahead of you. Passing to the right is harder as you have to turn the blade of your stick in order to hit with the flat side of it. Move ahead so that the ball is behind

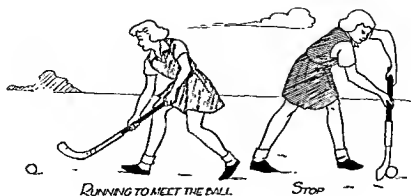


Fig. 3

your right foot, turn your shoulders, and drive as you step forward with your right foot. Be sure the ball goes ahead of your teammate. Hockey is a game of constant movement and your teammate will be running. Try to place the ball where she can hit it on the run without having to slow down.

If an opponent is about to take the ball from you and you don't have time to get off a drive, you can use a *push pass* (Fig. 4). Place the blade of the stick against the ball, slide your right hand down the handle, and push the ball as you step forward on your right foot.

DODGING

There are several dodges you can use to go around an opponent. In all of them the secret lies in doing them quickly and at the last moment so she cannot anticipate your move. Often it is good to mislead your opponent by making a feint in the opposite direction from which you intend to go and so get your opponent to shift her balance in that direction.

The *non-stickside dodge* is probably the easiest. As you and your opponent move toward each other, you can see that her stick blade is on her right and a ball sent to that side will be easy for her to stop. Stopping it on her left will be much more

difficult; so as she runs toward you, give the ball a quick, short push to her left or non-stick side, run past her on her right, and recover the ball behind her.

However, if she suspects you are going to use this dodge, you can fool her with a *stickside dodge*. Just as you meet your opponent, give the ball a sudden quick pull to your left, and as she runs past you, continue on your way. When your opponent is "on" to both these dodges, try the *scoop*. Just as she starts to take the ball from you, slide your hands apart, lay your stick back, blade facing up, and scoop or shovel the ball right over her stick (Fig. 4).

GETTING THE BALL

Then there is the problem of how to get the ball away from the other team. This must be done with no personal contact and no interference with an opponent's stick. The trick then is to get the ball while it is off the opponent's stick. The easiest interception is, of course, on a pass from one player to another. Run to meet the ball with your stick low and pointing toward it. Reach for the ball and control it with your stick. It is not necessary to stop dead, but you must control it before you hit it or it may fly up into the air and hit someone. Run to meet the ball, control it, pass it.

TACKLES

If your opponent is dribbling the ball and keeping it close, you can still get it by means of a tackle. *Tackle* means taking the control of the ball away from your opponent. Time your tackle so that you reach for the ball just as it leaves her stick and she has started on her back swing for the next hit of her dribble. If she is coming toward you, run to meet her with your stick down and reach for the ball just as you would to stop it. This is the *front tackle*. Be sure to keep to the left just enough so that the other player will pass you on your right and not run head on into you.

If you miss this tackle and your opponent continues dribbling down the field, turn around and run after her, catching up with



Fig. 4

her on her stick side but not too close (at least a stick's length away). Now you are ready to do a *left-hand lunge* (Fig. 5). As you pass her and just as the ball leaves her stick, swing your stick to your left, letting go with your right hand and reaching with your left. Your aim is for the ground directly in front of the ball and the blade of your stick should rest there—don't let it swing on through and clip your opponent across the shins. Come to an immediate stop, turn around, put your right hand back on your stick, and the ball is yours—but get moving or the other player will be back to try a left-hand lunge on you.

Sometimes it is not possible to overtake a player on her stick side, and you have to come in to tackle on the non-stick side. In this case you will have to use the *circular tackle* which is more difficult. As you overtake the player on her left or non-stick side, you will have to pass her and come around to get the ball almost facing her. If you just reach in, you will be *obstructing* with your stick or shoulder (putting your stick or shoulder between her and the ball). Come around almost facing her, reach for the ball, and keep going so that you make a semi-circle around her (Fig. 5).

TEAM PLAY

These are the skills of hockey you must master as an individual player and learn to do them all at top speed. Equally important is to learn to be a good team player.

Passing is a very important team skill. The best way to get the ball down the field to score a goal is by fast, accurate passing around your opponents. Learn to move so that you are ready to receive a pass where the opponents cannot get it or to draw your opponent out of the way so as to make a hole for the ball to be passed through to another teammate. And run! Speed counts in hockey. Always keep both hands on your stick and carry it low, ready for action.

Different positions call for different abilities. Try them all until you find the one for which you are best qualified.

Halfbacks

Halfbacks must have great speed and stamina, as they must be up the field on the attack with their forwards, often shooting for goal themselves and then back on defense when the other team breaks through with the ball. The left and right halves must be especially fast as they are responsible for the opposing wings—usually the fastest of the forwards.

The backs do not have as much running to do, but their job requires lots of headwork to set up a defense that will outwit the other team. They are the players who do most interchanging (exchanging positions temporarily with another player). The backs always play diagonally with each other. For example when the ball comes into the right back's territory, she goes on the attack while the left back drops back and toward the goal to cover in case the right back is passed. In this way an aggressive back can often break up an attack on her side of the field before it really gets started.

In general all defense players tend to play up, marking their opponents closely when the ball is on their side of the field and back in a covering position when the ball is on the opposite side of the field. The theory behind this is that the forward farthest from the ball is the least dangerous and can be loosely marked.

The Goalie

The goalie is that last brave soul standing between the opposition and a score. She either has no action or plenty of it all at

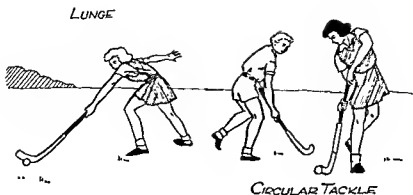


Fig. 5

once—no in-between for her! She must be smart, quick, and certainly not faint of heart. She should have the ability to direct the play of her defense.

The Wings

On the forward line the wings are usually the speediest players, as a very fast wing can often get the ball from her defense, dribble it down the field, and set it up in scoring position before the opposing defense can swing into action. By the time a wing reaches the 25-yard line on the attack, she should have decided whether she will dribble in and shoot or pass. Generally she should pass before she crosses the line. If she gets caught beyond it, she should dribble down to the corner and then pass back to another forward. She should dribble in to the striking circle only when she intends to take the shot herself.

The Center Forward

The center forward (and this is true of the center halfback position too) must be an excellent team player as she is in the best position to direct the play of her line. She often has the opportunity to switch the direction of the ball; so she should

see that both sides of the field are played equally. The inners are usually the team's highest scorers. They are in good scoring positions and should be very skillful at dodging, passing, and outsmarting the goalie.

Scores are not always made on hard hit balls but often on quick passes from one forward to another that pull the goalie out of position and also on dodges, pushes, and flicks. The *flick* is a very effective scoring shot as it goes slightly off the ground and is difficult to stop. To flick, start as for a push pass, but instead of simply pushing the ball, give a quick, hard snap of the wrists so the toe of the stick blade ends pointing up. This puts a spin on the ball (Fig. 6). Like the push pass, the flick should be done in a reaching position with the right foot forward. It is a fast stroke since there is no back swing. A left inner who finds herself in a difficult spot to drive for goal will find she is in a perfect spot to flick for that far corner away from the goalie who is busy protecting the near corner.

Forwards

All forwards should shoot for goal as soon as the ball is in the striking circle (goal does not count if hit from outside the circle) and then follow up immediately. All forwards should not crowd the goal at once; some should drop back to the edge of the circle either to receive a back pass from a teammate or to intercept a ball hit out by the opposing defense.

If the forwards shoot and miss the goal and the ball goes out-of-bounds over the end line, it is brought back in to the 25-yard line at a spot opposite where it went out and is bullied by the nearest forwards. On any bully everyone must be between the ball and her own goal line (the one you are defending). Occasionally the defending team hits the ball out over the end line. In this case a *corner* is awarded the attacking team.

Corner

On a corner players line up as shown in figure 7. The attacking wing on the side where the ball went out stands on the endline at the alley line or on the sideline 5 yards from the corner. She

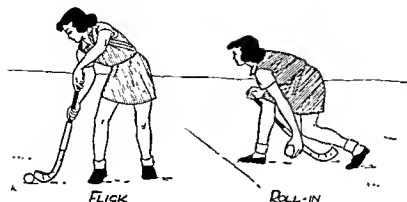


Fig. 6

hits the ball to any member of her team who must have feet and sticks outside the striking circle until the ball is hit. The player receiving the ball must stop it (not necessarily motionless) before shooting for goal. The ball may be deflected or passed but may not be shot for goal until it has been stopped. The six defense players of the defending team must stand with feet and sticks behind their own goal line. Their forwards must be beyond the 25-yard line until the ball is hit.

Roll-in

If the ball is hit out of bounds over a sideline, a player on the opposite team rolls it in. The ball must be rolled and must touch the ground inside the field within 1 yard of the point where it left the field. The player taking the *roll-in* (Fig. 6) must have both feet and stick outside the sideline. She may not play the ball again until someone else has touched it. All other players must be out of the alley and within the field of play until the ball has left the hand of the player taking the roll-in. Whenever an occasion arises in which both teams should be given the ball, a *bully* is taken.

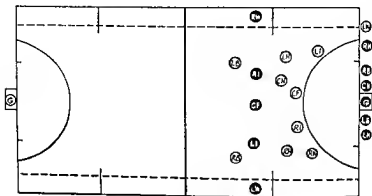


Fig 7. A Corner

SAFETY

Injuries do not have to happen in hockey. They happen more to beginners than to advanced players because of the lack of skill, lack of familiarity with the rules, and failure to think before acting. If you will learn to handle your stick skillfully, never hit into another player, never hit a moving ball without first controlling it, your game of hockey should be fun and free from injuries. Always wear shinguards and see that your goalie wears regulation goal pads and foot protectors. If you need to wear your glasses while playing, protect them with a glasses guard. You can get a clear plastic one which gives unobstructed vision.

EQUIPMENT

Hockey equipment is quite expensive and rather easily damaged if handled carelessly. If you are using school sticks, shinguards, and balls, treat them with respect—they have a rugged life. Good sticks, springy enough not to hurt your hands when you hit, cannot be too tough. Be careful how you use yours. Rubber grips are hard to replace—don't pull yours off or tear at it. Sticks come in various lengths and weights. Take a stick in the drive position and swing it easily. If it just clears the ground it is



This game, that has become "the thing to do," probably originated in Scotland. Its exact origin is not known. Shepherds tending their flocks on pasturelands may have started the game by hitting pebbles with their crooks.

Golf was a popular game in Scotland in the 15th century. It was so popular that parliament issued a decree banning the sport in 1457, because the men were neglecting their practice of archery to play golf. The ban was soon forgotten when the King of Scotland, James IV, was discovered playing golf. Mary, Queen of Scots, was the first woman golfer in the history of the game. Golf continued to be popular with royalty, noblemen, and commoners. The game was officially recognized in 1860, when the British Open Golf Tournament was played.

A Scot promoted golf in the United States in the late 19th century. Since that time it has been played continuously here.

THE GOLF COURSE

A golf course is a large field divided into eighteen areas called *holes*. Each *hole* consists of: an area called *the tee*, from which play is begun; an area of mowed grass varying in length from under one hundred yards to over five hundred yards, called the

to her left on her side of the field and for any fouls she feels the other official cannot see. Umpires refrain from calling a foul if it would be to the advantage of the offending team to do so. There are also two official timekeepers and two official scorers. You can learn to officiate as you learn to play.

Remember, you will enjoy playing if you always act in a sportsmanlike manner. It is customary in hockey, when a player knows she has committed a foul to step back and let her opponent play the ball. When this happens the umpire does not blow her whistle and the game continues. When it is necessary for the official to make a decision, respect that decision and be courteous to your opponents. Learn the rules and abide by them for clean and enjoyable play.

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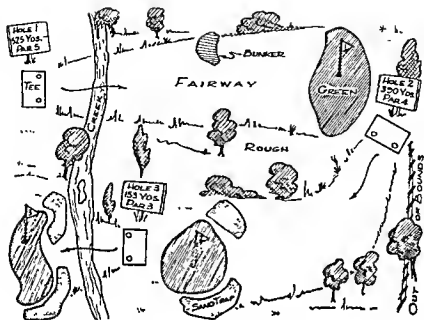


Fig. 1. Diagram of Three Holes of a Golf Course

The woods are so-called because the head or striking end is made of a rounded block of wood. The woods all have longer shafts, or handles, than any of the irons; so it is possible to hit the ball farther with the wood clubs than with the irons. The number one wood, the *driver*, is used at the start of a long hole when the ball is placed upon a wooden peg, the tee. Since the face of this club has little slant, it is not used to hit a ball off the grass. If your ball is on the fairway, and you still have a long distance to go to the cup, then you would choose one of the other wood clubs. There is more slant, or *loft*, to the faces of the other woods, so you can more easily strike the ball off the grass into the air. Which particular club you would choose depends upon the distance to the green and the position of the ball on the grass. The number two wood is called the *brassie*, the number three, the *spoon*.

The iron clubs have iron or steel heads. There is a name for

fairway; and, a small area of closely-cut grass at the end of the fairway, called the *putting green*. Somewhere in the green a circular *cup*, about four inches in diameter and six inches deep, is sunk. On either side of the fairway there may be areas of long grass, trees, and bushes, called the *rough*. There are two types of *hazards* on the course: shallow to deep pits filled with sand, called *sand traps*; and water hazards as *lakes* and *creeks* (Fig. 1).

THE GAME

The game is played with a small, hard rubber ball, which is placed on the ground and hit with long-shafted clubs. The object of the game is to hit the ball from the *teeing area* to the green and into the cup with the fewest possible strokes.

At the *teeing area* for each hole, the ball may be placed upon a wooden peg, also called a *tee*. The player attempts to hit the ball from the tee down the fairway in the direction of the putting green. He continues to hit the ball from wherever it lies until it finally drops into the cup. The score for each hole is the number of strokes needed to get the ball from the tee into the cup. The score for the game is the total number of strokes for all eighteen holes.

THE CLUBS

In playing golf it is necessary to hit the ball long and short distances. These distances will vary from over two hundred yards to less than a foot. The ball must be hit from different surfaces as from the fairway, rough, sand, and putting green. At times it is necessary to hit the ball high into the air as over a tree or a hill; to hit the ball low to go under the branches of a tree; or to roll the ball along the grass. There are two types of clubs, *the woods* and *the irons* (see Fig. 2). These have special features to enable the player to hit the ball different distances under different conditions.

All of the clubs are numbered: the woods, one through four; the irons, two through nine. As the number of the club becomes higher, the club shaft is shorter, and the slant to the *face*, the striking surface of the club, is greater.

FIGURE 2A. DIAGRAM OF MINIMUM SET OF CLUBS, SHOWING RELATIVE DISTANCES AND FLIGHT OF BALL.

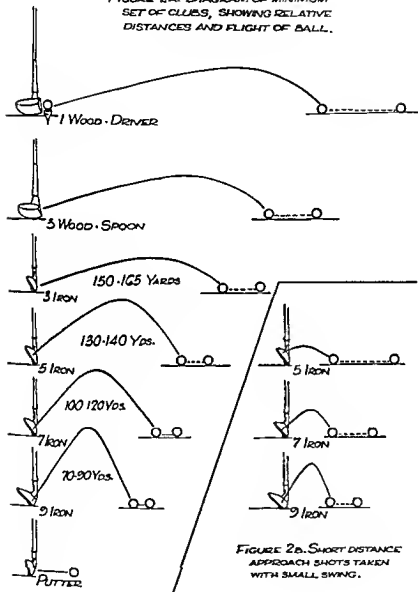


FIGURE 2B. SHORT DISTANCE APPROACH SHOTS TAKEN WITH SMALL SWING.

each iron, but they are generally called only by number. The 2-iron will hit the ball farthest and lowest since this club has the longest shaft and the least loft. The higher-lofted irons will hit the ball shorter distances and higher into the air.

The medium and high-lofted irons, five through nine, are used to play various type shots. You may wish to hit the ball a shorter distance than is possible with a particular club. For this stroke you grip down on the shaft and take a smaller swing at the ball.

When the ball is on the putting green, the club, called the *putter*, is used. The putter has the shortest shaft and the least loft. The ball is hit so it rolls along the surface of the putting green toward the cup.

TECHNIQUE OF PLAYING

How To Hold The Club

The grip of the club is first in importance. Without a good grip the hands and wrists cannot work properly when you are swinging the club. The most popular grip is the *overlapping grip*. In this hold on the club, the little finger of the right hand overlaps the index finger of the left hand. To grip the club, move your hands from the natural hanging position at the sides and take hold of the club on the leather grip. This is similar to shaking hands with the club. The palms face each other. The left thumb fits in the life line of the right palm. The grip should be firm, but not tight. A tight grip will prevent you from swinging the club swiftly, which is necessary to hit the ball the intended distance.

Some golfers prefer the *interlocking* or the *natural* grip. The positions of the hands are the same for all the grips. In the interlocking grip the little finger of the right hand and index finger of the left hand interlock. In the natural grip the little finger of the right hand is placed on the club with the other three fingers (Fig. 3).

How To Stand

The *stance* (position) to take to hit a golf ball is relatively simple. If you wish to hit the ball a long distance, you place

FIGURE 2A. DIAGRAM OF MINIMUM SET OF CLUBS, SHOWING RELATIVE DISTANCES AND FLIGHT OF BALL.

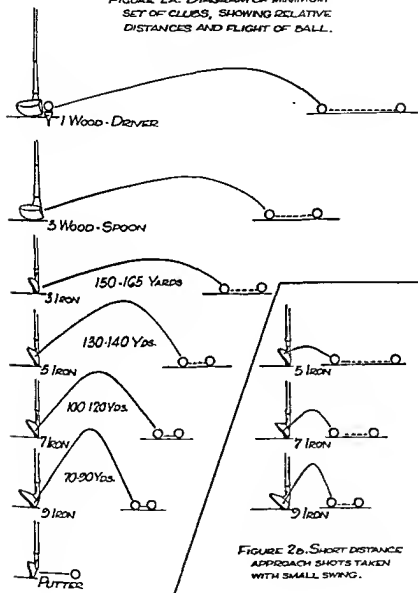


FIGURE 2B. SHORT DISTANCE APPROACH SHOTS TAKEN WITH SMALL SWING.

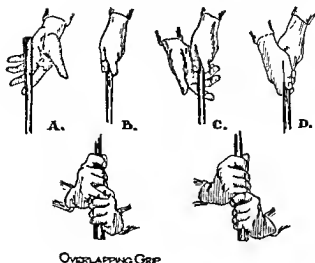


Fig 3. Grips

your feet about shoulder width apart. For short distances, you stand with your feet closer together. You stand comfortably away from the ball in a balanced position. The shaft of the club is at the center of the body and the club head rests evenly on the ground.

How To Hit The Ball A Long Distance

The movement to hit a golf ball is called a *swing*. To hit the ball far you must swing the head of the club swiftly, because the distance a ball will travel depends in part upon the speed of the club head. Consider how you would throw a ball a long distance. For the long distance you would swing your hand in a larger arc. So, to hit a golf ball a long distance, you must swing the club in as big a circle as you can, and with control. In the swing away from the ball, the *backswing*, the club is swung to a position so the shaft is approximately over the right shoulder and horizontal

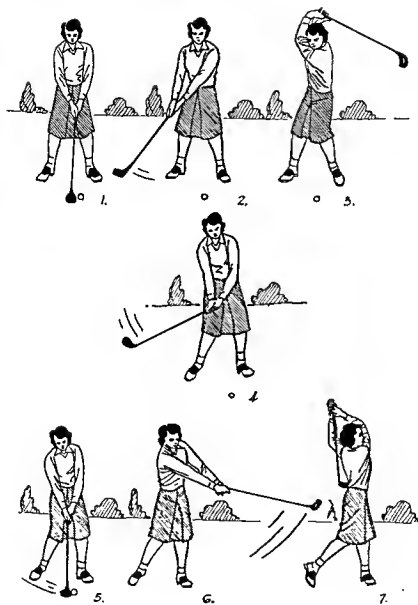


Fig. 4. Full Swing

How To Hit The Ball A Short Distance

The golf shot to the putting green is called the *approach shot*. The shots requiring a smaller swing than the full swing are taken with the medium or high-lofted irons, number four through nine. On these strokes you wish to hit the ball near the cup; so to be more accurate, you take a short hold on the club.

This swing is an abbreviation of the full swing. It may be very short like the swing of a pendulum of a clock or it may be almost a full swing. For different distances less than a full stroke you learn to sense by feel just how far you must swing a club for a given distance.

How To Putt A Ball

The putt is the stroke used on the putting green to roll the ball into the cup. The club head is swung a short distance away from the ball and then toward the cup. Because the swing is so small, there will be very little or no body action. The stroke is with the arms and wrists.

If you observe golfers, you will see that for this stroke there are many individual grips and stances. Putting is an individual stroke. Good skill in putting is important because about a third of the strokes for a round will be taken on the green.

SCORING

After each hole you write your score for the hole on the score card. The score card will show the length of each hole in yards and the par for each hole. *Par* for a hole is the number of strokes a good player should need to play a hole. Par for a hole varies from three to six depending upon the length of the hole. If a hole is 153 yards long, a good player should be able to hit the ball from the tee to the green. Since par allows two strokes on the putting green, par for this hole is three. Because men usually hit the ball farther than women, par on some holes is higher for women.

In playing golf you always have par to compete against. If you get one stroke less than par for a hole, you score a *birdie*. A score

to the ground. From this position the club head is swung toward the ball and distant target. It gains speed on the *downswing*, and this speed carries the club up over the left shoulder on the *follow through*. This swing can be compared with the swing the baseball player takes to hit a ball. The actions are much the same, but since one ball is in the air and the other on the ground, the paths the bat and the golf club follow are different.

In studying this swing, you will be interested in seeing just what movement takes place. The club head is swung back from the ball close to the ground and arises gradually on the backswing. As the club swings through and contacts the ball, it remains close to the ground and again gradually rises on the follow through. It is important that you do not try to swing the club up into the air. This will happen automatically. The swing is somewhat like whirling the weight on the end of a string. As you whirl or swing the weight, it also will swing into the air without your forcing it up.

During the backswing and to near the end of the follow through, the left arm remains fairly straight. Like whirling a weight on a string, there is an upward pull that keeps the left arm extended. The wrists bend, or "cock," naturally on the backswing and follow through. This action of the wrists is like the natural action that occurs when you strike a nail with a hammer.

The weight of the body shifts with the action of the swing. With this shift the body turns, or "pivots." Because you watch the ball until you strike it, your head will remain fairly steady during the swing. It is like the hub of the wheel of the swing. After you strike the ball, your head will turn to watch the ball in flight as the body turns.

The skilled golfer has learned to hit the ball far and straight by developing a smooth, easy, and rhythmic swing. When you see a champion hit a ball, you might wonder how he can hit it so far with a graceful and easy swing. This graceful swing, not brute strength, produces club head speed and accurate contact with the ball (Fig. 4).

you played the previous one.

11. The flag must be attended when you are on the green. If the ball hits the pole, the penalty is: match play, loss of hole; medal play, 2 strokes.
12. If your ball comes to rest on the wrong putting green, you must lift it from the green. Drop it off the green not nearer the cup you are playing for.

GOLF ETIQUETTE

Golf is usually played by four people called a *foursome*. There will be many *foursomes* on a course at one time. Playing is more enjoyable and safe, if all of these golfers follow rules of etiquette. Your observance of these rules simply shows consideration for other players on the course.

1. Learn the rules of golf and abide by them.
2. When a golfer is making a shot, stand quietly away and ahead of him. Golf requires concentration; so do nothing that will disturb the player.
3. Wait until the players in front of you are out of range before playing your stroke.
4. When you have finished playing a hole, replace the flag in the cup and leave the green *immediately*. Mark your scores on the score card at the next tee.
5. If you dig any turf, a *divot*, replace it and press it down with your foot.
6. Be careful how you walk on the putting green so as not to mar the surface in any way. Never walk or stand near the cup.
7. After you have made a stroke in the sand trap, smooth out all marks made in the trap.
8. If a member of your group is looking for a ball, help him in his search. If you are delaying the players behind you, signal them to pass. Wait until they are out of range before continuing with your play.
9. Play without delay. If you are a beginner, and players behind play faster, invite them to play through.

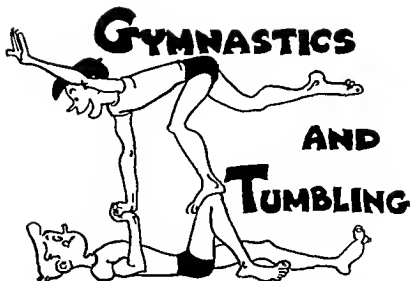
of two strokes under par is an *eagle*. A score of one over par is a *bogey*.

GOLF RULES

The fundamental rule of golf is that once you strike the ball from the tee, you do not touch it until you lift it out of the cup, except to strike it with the club. If it is impossible to strike the ball, there are rules to govern the situation.

The elementary rules are not difficult. As you continue playing golf, you will learn more rules as situations of play arise.

1. To start each hole, you tee your ball between the *tee markers*, or within an area two club lengths back of them.
2. You play from the tee according to *honor*. On the first tee you decide by lot who will play first. After the first tee, the person with the lowest score on the previous hole has the honor, that is, the privilege of playing first.
3. After teeing off, the ball farthest from the cup is played first.
4. You play the ball as it lies on the grass or in the sand, unless certain rules allow you to move the ball.
5. If your ball lies near such obstructions as ball washers, sprinklers, and hoses, you may move the ball without penalty.
6. You may not press down the ground near your ball, or break, or bend anything fixed or growing.
7. If loose impediments, such as, fallen leaves or twigs, interfere, you may move them, except in a hazard.
8. In playing from hazard, you cannot touch the surface of the hazard before you take your swing to hit the ball.
9. The penalty for a lost ball or an unplayable ball is either a) shoot another ball from the spot where you played the previous one and add a penalty stroke; or b) drop a ball at any distance behind the point where the ball lies, adding a penalty stroke. In case the ball is in a bunker, the ball must be dropped in the bunker.
10. If your ball goes beyond the limits of the course, *out of bounds*, you must shoot another ball from the spot where



The words "Gymnasium" and "gymnastics" came to us from two Greek words that meant in ancient times pretty much what they mean to us today. The Greek *gymnasion* was the place where athletes (contestants for a prize, *athlon*) were trained in *gymnastike*. These two Greek words came from the adjective *gymnos*, meaning naked or lightly clad, because of the little or no clothing worn by Greek athletes while taking gymnastic exercises or participating in athletic events.

From this you can see that the Greeks, as well as most other ancient civilized peoples, quite early recognized the importance of physical education and provided places—gymnasiums—where their youth and young men and women could train their bodies for skills of coordination and strength.

The Greeks used the term "gymnastics" very broadly to include all athletic activities. It was not until the middle of the 19th century in Germany that it began to take its modern, more limited meaning—stunts done on such gymnasium equipment as the horse, parallel bars, rings, and horizontal bar.

MODERN GYMNASTICS

The writings of Guts Muths and the inventions of gymnastic

SAFETY PRECAUTIONS

For the number of people playing golf, few accidents occur. Probably many that do happen are due to carelessness or lack of knowledge. Do you know that it is possible to swing the club 100 miles an hour or more? The golf ball also travels at a high rate of speed. When you practice or play, follow these safety rules.

1. Before taking a practice swing, check your area to see that no one is near your range of swinging. When other people are swinging or taking practice swings while waiting to tee off, be careful where you walk.
2. When playing, never walk ahead of anyone making a golf shot.
3. If you hit a ball that is in danger of striking anyone, call "FORE" loudly.
4. Before playing golf, study the game. All players should have instruction before playing.

GOLF COMPETITION

Golf is a major individual sport. The sport pages of newspapers always carry stories on golf tournaments. There are two types of competition, stroke or *medal* play and *match* play. In a stroke-play tournament, the contestants play a certain number of rounds, usually four, and the winner is the person with the lowest total score. In a match-play tournament, two players are matched against each other, and the competition is by holes. The person who wins the greatest number of holes is the winner. Winners keep playing until there is one winner of the tournament.

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SAFETY

A boy or girl may advance from simple to complex techniques in gymnastics and tumbling with little danger by following simple safety principles. Remember that all expert gymnasts followed these rules as they attained success.

1. Warm up well with calisthenies or with elementary stunts in the activity in which you are to participate.
2. Inspect the equipment before using it. See that it does not move when you mount it.
3. Chalk your hands well before working on the apparatus.
4. Have only one person at a time working on apparatus.
5. When learning advanced stunts, insist upon mature spotters.
6. Always have sufficient mats in fixed and proper positions.
7. Roll with the fall.
8. Learn your stunts in a progressive manner. Do not attempt stunts based upon lead-up stunts that you have not perfected.
9. Volunteer to spot your classmate.

SPORTSMANSHIP

Because gymnastics is a highly-skilled activity requiring exacting team work, it also requires specific social etiquette. Following these suggestions will help to make you a better sportsman in the eyes of your gymnastic friends:

1. Help to lift mats, rather than drag them, from one area to another.
2. Do not monopolize equipment, especially the trampoline on which it is so easy to remain a long time.
3. Do not distract a performer with jokes or horseplay.
4. Work only when you are dressed in proper gym clothes.
5. Keep bouncing balls away from the gymnastic area.
6. Remember that every time you help a classmate, you are multiplying the effectiveness of your teacher as well as improving the ability of your class. You are also gaining respect from those whom you help.

CARE OF EQUIPMENT

Gymnastic equipment is expensive, and yet its cost over a

apparatus by Friederich Jahn, both German physical educators, helped to promote the sport in Europe during the 19th century. The Turnvereins, which were German athletic clubs, also did much to stimulate interest in this activity.

When the sport was first introduced to the United States during the 19th century, it was not enthusiastically received because it was taught in a formal, militaristic manner. Since that time we have learned that when gymnastics is taught informally by capable instructors, it is as popular as other physical education activities.

For years the A. A. U. has recognized gymnastics as a sport for men and women, and both sexes have participated creditably in several Olympiads. Most of the stunts described in this chapter may be successfully attempted by both boys and girls. However, those marked with a star (*) are not recommended for girls because the female anatomical structure is not suited to these stunts. None of the stunts listed under the categories of the side horse and the horizontal bar are recommended for girls.

VALUES

What will participation in gymnastics do for you? Here are a few of the ways it will help you:

1. Your upper body strength will be improved, and when trampoline and tumbling events are included, your all-round strength will increase.
2. Your coordinations will improve (This means that you can perform with more grace and less effort).
3. You will have added flexibility.
4. You will learn how to fall properly, and this will be helpful to you in all sports.
5. You will learn to be "cautiously" courageous. In other words, you will learn the dangers involved in certain stunts, and proceed to overcome these dangers through a progressive mastery of skills.
6. You will take an interest in helping your classmates to learn stunts, and you will also be appreciative of the help they give you.

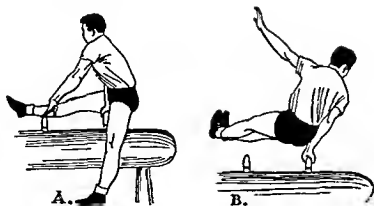


Fig. 2. Single Rear Dismount.

2. Single rear dismount.

(A) Feint with right leg while in a front support. (B) Bring right leg back quickly in clockwise motion, pivot on right arm and keep hip next to wrist as left hand is released. (C) Land on the mat on far side of horse still grasping the pommel with right hand (Fig. 2).

3. Front support, half circle left with left leg.

(A) Front support; shift weight to right hand. (B) Bring left leg over horse as left hand is raised. (C) Re-grasp pommel, and return to starting position. Repeat with right leg in opposite manner.

4. Rear support (Fig. 1, B), left half circle with left leg.

(A) Rear support. (B) Shift weight to right hand, bring left leg back over the horse as left hand is raised. (C) Re-grasp pommel. Return to starting position. Repeat with right leg in opposite manner.

5. Front support, full left leg circle.

(A) Front support. (B) Shift weight to right hand, bring left leg over horse as left hand is raised (Fig. 3, B). (C) Pommel is re-grasped and weight shifts to left hand. Left leg continues in same direction over right side of horse while the right hand is raised until the original position is reached and the weight equalized on both hands. Repeat with right leg in opposite manner.

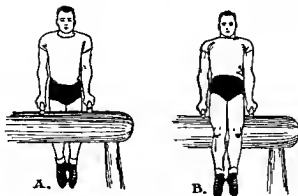


Fig 1. Front (A) and rear (B) support

period of years is very small when it is given good care. You may help your instructor by assisting him with the following inspections and maintenance:

1. Inspect regularly the turnbuckles, floor plates, bolts, ropes, and beam attachments.
2. Oil movable parts.
3. Wash trampoline covers.
4. Clean leather equipment with saddle soap.
5. Vacuum mats, and repair plastic mats immediately upon finding tears.
6. Put the equipment away in its proper place when it is not in use.

SIDE HORSE*

Helpful Hint: Wear long, close-fitting pants to give you easy movement when you work on the horse. Try to keep the arms straight and the weight forward on most moves.

1. Single rear mount.

Stand facing horse, right hand on left pommel, left hand on neck. Spring up, pivoting on right arm, and swing both legs over the neck. Keep hip next to right arm, and grasp free pommel with left hand. Remain in front support (See Fig. 1, A), change right grip.

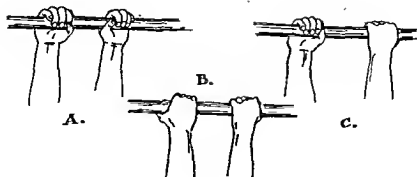


Fig. 4. Grasps: A, regular; B, reversed; C, combined

3. Monkey hang.

(A) Jump and grasp bar. Bring legs between arms until feet are down and body is fully extended. (B) Slowly release left grasp. (C) Revolve around right hand until bar is re-grasped in original position.

4. Backward single knee circle.

(A) Support yourself on the bar with both hands in the regular grasp, and the knee. (B) Extend yourself from the bar with

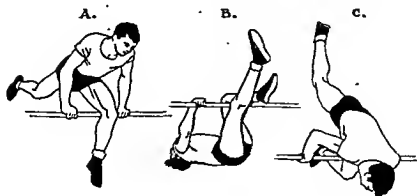


Fig. 5. Backward Single Knee Circle

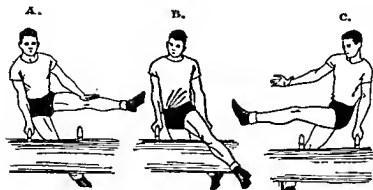


Fig 3 Full Left Leg Circle

6. Shifting balance with one-half circle and parallel swing.

(A) Front support. (B) Shift weight to right hand, bringing left leg over horse. (C) Re-grasp pommel, and bring both legs high to the right and close to the horse. Both legs come down, and the left returns to starting position. Repeat with right leg in opposite direction, and eventually you alternate three times rhythmically.

HORIZONTAL BAR*

Helpful Hints: In determining whether to use a regular or reverse grasp, it is usually safe to "follow the thumbs," that is, when going forward, use a reverse grasp (palms up), and when going backwards, use a regular grasp (palms down).

1. Single knee swing up.

(A) Hang on bar with both hands in regular grasp, swing right knee over bar inside the hands. (B) Extend left leg and swing down forcefully. As momentum builds upward, (C) pull up with arms and throw head forward.

2. Belly grind.

(A) Chin yourself with either grasp and bring legs upward simultaneously. (B) Bring feet over the bar and continue to pull upward until (C) you are resting in a front support on the bar.

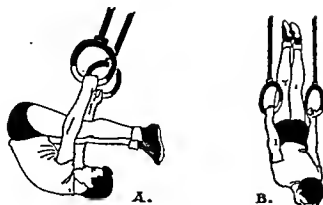


Fig 8. Kip position (A) and inverted hang (B)

6. Hook swing dismount.

(A) Swing several times by knees only to build up your swing. (B) On forward swing extend arms and body, lift high with shoulders, hold tightly with knees. (C) When you see the ceiling, release knee grasp, and (D) land on feet.

7. Forward double knee circle.

(A) Sit on bar, holding on with reverse grasp. Extend arms and bring knees back to the bar. (B) Lean forward making yourself as long as possible. (C) On upward swing, shorten the radius by pulling up and in until you are on top of the bar.

RINGS

Helpful Hints: Learning to beat properly is of great importance if stunts are to be done in an easy manner. "Beating" is swinging from a hanging position while attempting to touch an imaginary point on the mat directly beneath the ring supports during the middle of each swing. Some stunts are done with an early beat, others with a late beat. Try all stunts on the still rings at first; then progress to a small swing. Two basic positions are *kip* (Fig. 8, A) and *inverted hang* (Fig. 8, B).

1. Pushing a performer.

Grasp the performer's ankles, and pull him backward after he

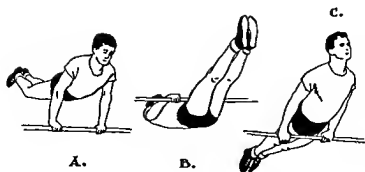


Fig 6. Backward Hip Circle

the left leg still gripping the bar tightly. (C) Upon passing the lowest part of the arc, shorten the radius by pulling up with the arms until you stop at the original position.

5. Backward hip circle.

(A) From front support, bring legs back and arch the back so the body is away from the bar. (B) Bring feet down and around the bar, holding it tightly towards the stomach. (C) Momentum brings the body back to the starting position.

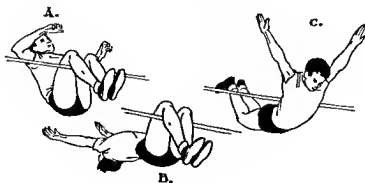


Fig 7. Hook Swing Dismount

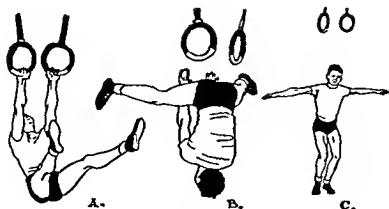


Fig. 10. Double Leg Cut Off

hand while continuing to hold tightly with opposite hand and foot. When executed with a swing, go into both positions on the end of either the forward or backward swing. *Spot carefully* because beginners frequently forget which hand or foot to release.

6. Single leg cut and catch.

(A) From a *piked* position, pull up and swing right leg forward so that it passes the ring behind the knee as the right hand releases its grasp. (B) Continue to hold the body up with a flexed left arm until the right hand re-grasps the ring. When you are proficient, learn while swinging. Make the move at the *end of either the forward or backward swings*.

7. Muscle up.*

(A) Use an overgrasp on the rings (heels of the palms are over the top of the rings). (B) Pull up. (C) Lean forward, and keep rings close to the sides. (D) Straighten the arms.

8. Double leg cut off.

Grasp rings and swing body back and forth several times to secure sufficient momentum. (A) Bring legs upward. (B) Keep legs apart, and as they go backward and the thighs touch the rings, release grasp and momentum will bring you to a (C) standing position on the feet. Fig. D shows how the stunt can be spotted by lifting beneath the arm pits.

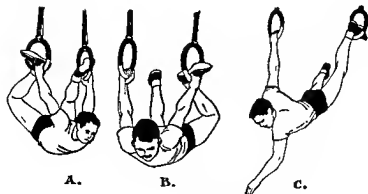


Fig 9. Bird's nest (A) and angel (B)

lifts his feet. Release the grasp, place your hands on his buttocks, and push him as you run forward.

Grasp the performer's ankles, pull him back, and at the end of the swing vigorously snap the person forward.

2. Beats.

(A) Keep legs together and back arched on the back swing. (B) As you come forward, flex in the waist and bring feet down to the mat directly beneath the ring supports. (C) The back arches slightly at the mid-point of the swing. (D) Bring feet upward on the forward swing. When returning backward, bring feet back and then down to the mat as you are beneath the ring supports.

3. Beats with half twists.

On the forward swing as the feet go upward, turn the shoulders and hips to allow you to face in the opposite direction when you return to the middle of the swing. Beat again, and at the end of the next forward swing, turn back in the opposite manner.

4. Bird's nest.

(A) Grasp rings, and bring feet upward until insteps are placed in rings. (B) Head up, arch back, and hold on tightly with hands and feet.

5. Angel.

Starting from a Bird's nest position, release right foot and left

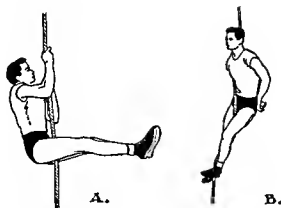


Fig. 12. Climbing without legs (A); make fast and rest (B)

4. Up down-up down.*

Climb rope either with or without use of legs. Return to within twelve inches of the floor, and repeat.

PARALLEL BARS

Helpful hints: Spotters should "spot" beneath the bars in order that they will not endanger their own arms. Bar widths may have to be changed depending upon the size of the boys or girls in the class. Stunts should be learned at the lowest level of the bars—and then raised.

1. Front vault dismount.

(A) In the middle of the bars, swing from a support position (Fig. 13). (B) At end of backward swing, place left hand in front of right hand, and bring legs over the right bar. (C) Release right grasp, and land on mat still grasping bar with the left hand.

2. Swinging dips.*

(A) Swing back and forth from a support position. As you reach the end of the backward swing, bend the arms. (B) The legs come down, and as they rise on forward swing, straighten the arms. Repeat several times.

3. Traveling dips.*

Same as a swinging dip except that when you near the peak

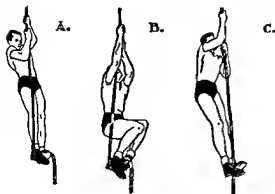


Fig 11. Climbing Rope with Legs

ROPES

Helpful Hints: Use plenty of chalk when climbing. Come down slowly to prevent hand burns, and to increase arm strength. All gymnasts should climb the rope several times daily for conditioning purposes.

1. Climb rope with legs.

(A) Rope passes down side of body under right foot and over left foot while hands grasp rope tightly. (B) Flex knees but keep the rope in the same relative position. Squeeze rope tightly with feet, straighten the legs, and reach higher with the hands. Continue up the rope.

2. Climb rope without use of legs.*

This should be attempted only after sufficient strength and technique of climbing the rope with both hands and feet has been established. Grasp rope high above head, pull up with arms while keeping legs in an "L" position with the rope between the legs. Increase the length of your reach as you progress.

3. Make fast and rest.

Climb rope at least ten feet and allow it to pass between your legs and around the outside of the right leg and over the instep. Press the rope tightly against the right instep with the left sole. Squeeze the rope with the right arm pit.

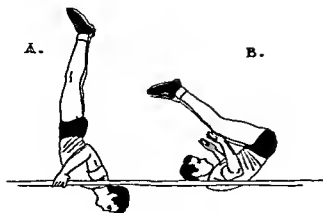


Fig. 15. Forward Roll

right grasp. (B) When legs meet between the bars, re-grasp. Learn the stunt with the bars at their lowest level, and raise them as you progress. Reverse for a dismount.

5. Double leg cut on mount.*

After mastering the single leg cut on mount, try this at the lowest level of the bars. (A) Stand at end of bars and grasp both of them. Bring both legs up from the outside inward. Release the grasp as the legs come in. (B) Re-grasp as the legs pass the hands. (C) Keep legs spread and land on thighs and hands. (D) When these steps have been perfected, re-grasp when the legs are together rather than having them rest on the bars.

6. Shoulder balance.

Practice at lowest level of bars. Kneel on hands and knees on the bars. Grasp bars tightly, *keep elbows wide*, and head up. Slowly bring buttocks up, and extend legs until you reach an inverted position (B).

7. Forward Roll.

(A) Hold the shoulder balance. (B) Overbalance, and keep elbows wide. As weight falls forward, release grasp and keep legs together. Re-grasp the bars near the hips and bring legs between the bars.

8. Kip.*

(A) May be done from the intermediate piked position of the

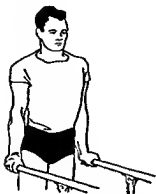


Fig. 13. Support Position

of your forward swing (A) lean forward and release the grasp to permit body to travel forward several inches. Re-grasp and hold with straight arms.

4. Single leg cut on mount.

Stand at end of bars, and grasp bars. (A) Jump upward bringing right leg outside of right bar, and as the leg comes in, release

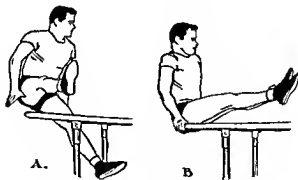


Fig. 14. Single Leg Cut On Mount

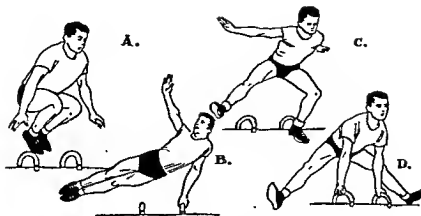


Fig. 16. Squat vault (A), flank vault (B), wolf vault (C), straddle (D)

better to use only boys as the objects over whom the others will vault.

5. Squat vault—side horse.

(A) Spring from the board as you grasp both pommels. (B) Lift knees high, keep them together, vault over the horse, and land on the feet on the other side.

6. Flank vault—side horse.

Spring from the board as you grasp both pommels. Bring both legs over the croup (right side) of horse. Legs should be straight, and raised high. Keep weight supported on a straight left arm.

7. Wolf vault—side horse.

This is a combination of squat and straddle vaults. Grasp both pommels as you spring from the board. Bring left knee high between the pommels while right leg is straight and to the outside.

8. Handspring—side horse.

(A) Grasp both pommels as you spring from the board. Lean forward slightly as you throw the legs high in the air. (B) Arch the back, and release the grasp of pommels only after the feet are several feet past the horse.

9. Straddle—side horse.

(A) Grasp the pommels as you spring from the board. Place

forward roll for those who have weak stomach muscles. Otherwise, swing into this piked position from an upper arm hang. (B) Brings legs forward, and as they pass the perpendicular, they should be thrust upward and forward. (C) Lean forward and extend the arms.

VAULTING

Helpful Hints: As you gain confidence on the springboard, learn to take off the mat and land on the far end of the board rather than continue to take a step on the board before landing on the far end. The former will give you more height and distance. If you are contemplating purchasing a new springboard, strongly consider a Mini-tramp instead. The cost is close to that of a springboard, it is much more compact for traveling purposes, and a wider variety of stunts may be accomplished with it.

1. Touch toes.

Spring in the air bringing the feet up and legs apart. Touch the toes quickly, and land on the feet.

2. Half twist.

Spring in the air, and when nearing maximum height, turn the head to the right. Bring the left hand upward and across the chest to give impetus to the turn. Complete the twist by facing in the direction of the springboard, and land on both feet.

3. Straddle over human—squat position.

Person stands erect, then places hands firmly on his knees. The back is bent 45 degrees, and one foot is slightly in advance of the other. The performer springs, places hand on upper back of the other, and straddles over him.

4. Straddle over human—standing position.

This should be practiced only after you are successful with No. 3. A person stands erect, hands at sides, and one foot in advance of the other. Performer springs, places hands on person's head, and straddles over him. When done correctly very little weight is placed on person's head. When this stunt has been perfected, add more people in front of the last one. The performer always tries to place his hands on the head of the one farthest from the board. Although both boys and girls may vault, it is



Fig. 17. Backward Roll

buttocks touch the mat. (E) As feet continue over, push off the mat with hands and bring feet to the mat.

5. Backward extension roll.

Same as backward roll except at step (B). Extend legs over head as you push off the mat, and you come down to the mat (C) straight rather than tucked.

6. Squat balance.

(A) Squat with knees resting on outside of elbows. (B) Lean forward until balance is held with hands and toes. (C) Bend arms slightly, keep head up, and bring toes off the mat. Keep weight forward on the fingers.

7. Head balance.

(A) From a squat balance. (B) Lean forward gently until head touches the mat. (C) Keep buttocks high, and arch the back as you extend your legs upward. *It is essential to keep a triangle between the hands and the head.*

8. Cartwheel.

(A) Take a short run sideways. (B) Place left hand on mat close to left foot. (C) Place right hand on mat shoulder width apart from the left hand to assist you into the inverted position. (D) Bring right leg down. (E) Left leg comes down, and you are in a standing position facing the same direction in which you started.

legs wide apart. (B) Upon rising, release grasp and straighten up as you go over the horse. Land on your feet on the mat.

10. Straddle—long horse.

Detach the pommels, and arrange the horse to allow you to work the long axis. You now have a long horse. You should not consider working this way until you have reasonable proficiency with the previously mentioned stunts. Run and spring from the board; then reach with both hands for the far end (neck). Push off hard with the hands, keep the legs spread, and land on the mat. *At first, land lightly on the horse in the saddle; then increase your distance a few inches each time until you can clear the horse.* As you progress, elevate the horse.

INDIVIDUAL TUMBLING

Helpful Hints: Learn to spot as well as you can perform. Be aware of other tumblers before you attempt your stunts.

1. Forward roll.

(A) Squat with knees between the arms. (B) Lean forward and tuck the head so that no part of the skull makes contact with mat. (C) Keep weight on hands, tuck. (D) Grasp ankles to stay in tuck position. (E) Come up on feet.

2. Dive.

Once you have mastered good forward rolls, you can think about diving for distance and over classmates. (3) Take off both feet with a slight forward lean. (4) When in mid air, keep eyes open and reach for the mat. (5) Take weight on hands, tuck head, land on back of neck. (6) Stay tucked and (7) continue rolling until you reach a standing position. As you progress, add more people to dive over.

3. Dive between legs.

The dive is executed through the legs of another student doing the head balance with the feet spread wide apart.

4. Backward roll.

(A) Stand with hands at sides. (B) Squat and lean backwards. (C) Bring hands next to ears and elbows near your sides as you push backward with the feet. (D) Place hands on mat fingers pointed toward the shoulders and stay in tuck position as your



Fig. 17. Backward Roll

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Helpful Hints: Learn to spot as well as you can perform. Be aware of other tumblers before you attempt your stunts.

1. Forward roll.

(A) Squat with knees between the arms. (B) Lean forward and tuck the head so that no part of the skull makes contact with mat. (C) Keep weight on hands, tuck. (D) Grasp ankles to stay in tuck position. (E) Come up on feet.

2. Dive.

Once you have mastered good forward rolls, you can think about diving for distance and over classmates. (3) Take off both feet with a slight forward lean. (4) When in mid air, keep eyes open and reach for the mat. (5) Take weight on hands, tuck head, land on back of neck. (6) Stay tucked and (7) continue rolling until you reach a standing position. As you progress, add more people to dive over.

3. Dive between legs.

The dive is executed through the legs of another student doing the head balance with the feet spread wide apart.

4. Backward roll.

(A) Stand with hands at sides. (B) Squat and lean backwards. (C) Bring hands next to ears and elbows near your sides as you push backward with the feet. (D) Place hands on mat fingers pointed toward the shoulders and stay in tuck position as your

one foot, keep head up. (E) Final position should show the head up, arms straight, back arched enough to allow the feet to be directly over the head. The weight must be kept forward enough so that finger pressure must be constantly applied to maintain the balance. In learning this stunt use a wall to support your feet.

COMBINATION TUMBLING AND BALANCING

Helpful Hints: This is one of the best gymnastic activities since it uses both the large and small student. Since some of the stunts may be done with more ease and learned in less time when there is a wide variance in weight, it lends itself very well as a co-education activity. The comparative light weight of girls and superior strength of boys can be used to advantage. The lighter person who usually works on top is called the "Top-mounter," and is denoted by "T." The partner who is frequently the base is called the "Understander," denoted by "U." If you use definite signals such as, "One, two, go," etc., it will help you with your timing, and thus save strength.

1. Double roll.

(A) "U" lies on back with legs in air. "T" stands near "U's" shoulders grasping "U's" ankles as "U" grasps his ankles. (B) "T" rolls forward as "U" brings feet down apart and close to his buttocks. "T" keeps arms straight. (C) "T" bends arms and rolls on upper back and as he brings his feet over, he pulls "U" up. (D) Continue down the mat.

2. Three snakes.

(1) Three men rest on hands and knees. They should be about four feet apart, and facing the same side of the mat. (2) Middle man side rolls towards man on his left. The latter immediately jumps over the middle man and lands on his hands and knees. (3) He then rolls to his right as right end man jumps into middle position and land on hands and knees. Repeat indefinitely and increase speed.

3. Jumps and rolls in 3's.

(1) Three men line up with the end men facing each other, and the middle man (No. 2) faces man on his right (No. 1). (2) No. 2 does a forward roll with a tight tuck. As soon as his head

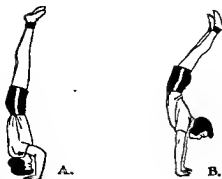


Fig 18. Head balance (A), hand stand (B)

9. Handspring.

(A) Take a short run forward. (B) Raise arms high, then place hands on mat as you take off one foot. (C) Kick both feet vigorously overhead. (D) Arch the back and straighten the arms as you try to bring the feet back beneath you. (E) Land on feet.

10. Hand balance.

(A) Place hands shoulder width apart. (B, C, D) Kick off with

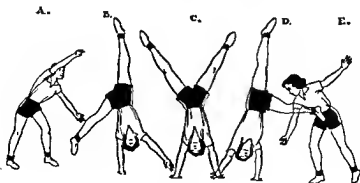


Fig 19. Cartwheel

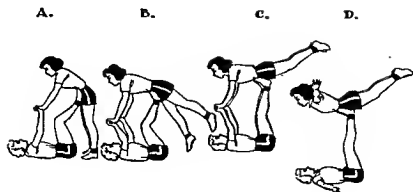


Fig. 20. Front Swan on Feet

The two grasp hands, and "U" brings legs up until perpendicular to floor. When balance is secure, "T" releases the hand grasp, and the balance is then maintained by the control of "U's" feet and legs. "T" holds an arch.

9. Shoulder balance on feet.

(1) "U" lies on back, places knees on chest and lower legs perpendicular to mat. "T" places her shoulders on the balls of "U's" feet, and the two grasp hands. "T" kicks up into a shoulder balance as "U" extends her legs and arms.

10. Lever around the chest.

(1) "T" stands on her head with feet apart. (2) "U" comes in close to "T's" face, and bends over between the latter's legs to grasp her around the waist. (3) "T" squeezes her thighs against "U's" sides, raises up by arching the back, and keeps legs straight. "U" keeps leaning back to assist "T".

11. Back flip over partner.

(A) "U" lies on back with legs in air to allow her feet to be placed on the buttocks of "T" who is standing in front of her. (B) "T" leans back in an arch with "U's" hands prepared to support her shoulders. (C, D) As "T's" shoulders touch "U's" hands, the former brings her feet over her head. At the same time "U" extends her legs to assist "T" in completing the somersault and landing on her feet on the mat.

lowers to the mat, No. 1 jumps high with feet apart, and travels forward. (3) No. 1 then rolls and No. 3 jumps over him. (4) No. 1 begins his roll. (5) No. 2 has turned around and jumps over No. 1, etc.

4. Feet to hands balance.

"U" lies on back with legs straight in the air. Hands are placed on mat near his ears. "T" stands in "U's" hands and grasps his feet. (2) "T" jumps up as "U" extends his arms. (3) As the balance become more secure, "T" releases "U's" feet and stands erect.

5. Thigh stand.

(A) "T" stands erect as "U" comes from behind and places his head between "T's" legs. "U" bends over placing his hands on his own knees to assist in raising "T." (B) "U" stands and grasps "T's" thighs. (C) "U" bends knees slightly, and "T" places his or her feet on them. (D) "T" stands erect and leans forward as "U" continues holding thighs. (E) "T" leans forward more, and "U" leans back to counteract the weight.

6. Stand on shoulders

(1) "U" stands with feet a comfortable distance apart and knees bent. "T" stands at "U's" right side. Both grasp left to left hands and right to right as "T" places his right foot high on "U's" right thigh. (2) "U" lifts left hand and uses right hand for support while "T" places left foot on "U's" left shoulder. (3) "T" stands and places his right leg on "U's" right shoulder. (4) Hand grasp is released, and "U" pulls down hard on "T's" upper calves.

7. Low arm to arm balance.

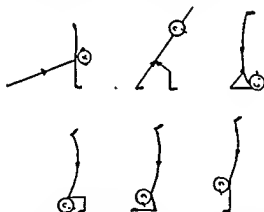
"U" lies on back with feet under buttocks and a comfortable distance apart. "T" stands between "U's" feet, places his hands on "U's" knees and the upper arms in his hands. He kicks into a shoulder balance. "U" brings his arms to a perpendicular position. As he does this, "T" leans forward more, arches the back, and places his hands on "U's" upper arms to help maintain the balance.

8. Front swan on feet.

(A) "U" lies on back with feet about 60 degrees from mat. "T" stands near "U's" buttocks and places the latter's feet across his hip bones. Feet should be parallel and toes near lower ribs.

asked to substitute for another position, then quality of the performance suffers. When you are nearing the date for a demonstration, each person should be chosen for specific positions in the pyramid, and he should perform them with precision. There is as much team work in this activity as in many team sports.

3. The shape of the pyramid is usually concave or convex. This means that there needs to be end units and middle units, their height depending upon which type is desired. Time should be spent learning formations for one, two, three, and four people; and the way in which these, or their variations, will eventually be used will depend upon the symmetry finally decided upon by the leaders and the instructor.
4. Examples of the use of single individuals, primarily for the purpose of giving balance to the ends, are as follows:



5. Examples of the use of two members are as follows:



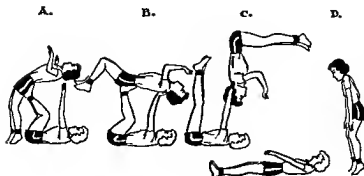


Fig. 21 Back Flip over Partner

PYRAMIDS

The building of human pyramids has always been considered as a worthwhile event to include in physical education programs, and it is also a logical one to include in any demonstration or exhibition. It is merely the art of having a group of people work as a unit with or without equipment to form artistic figures.

This activity may be compared with a marching drill team. Each movement isolated by itself and done individually is unspectacular. However, when several of the movements are coordinated and done by several persons, it is most effective.

Good pyramid building is based on several factors, among which are the following:

1. It should not be attempted until you and your teammates have mastered the stunts covered in the balancing section of this chapter. Unless a number of these stunts can be done with ease, it is difficult to make the pyramids. Afterwards, these stunts can be used as a basis upon which you may use your own creative ability by changing them to fit your own conception of good design.
2. It is important to have the same groups work as units whenever possible. When a person is absent, or when one is

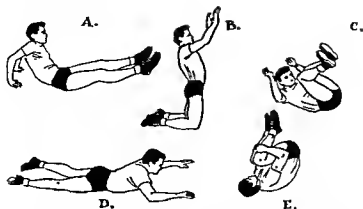


Fig. 22. Trampoline positions: A, seat drop; B, knee drop; C, back drop; D, front drop; E, tuck

ing in that position, and returning to the feet.

2. Knee drop.

Kneel on trampoline bed. Toes pointed, body erect, and knees a comfortable distance apart. Take low bounces landing in that position, and returning to the feet. Keep the hips and knees stiff when landing.

3. Back drop.

Lie on trampoline bed with feet at a 60 degree angle from bed. Take low bounces, and land in that position. As the springs thrust you upward, quickly extend your legs and arch the back to aid you in reaching the standing position.

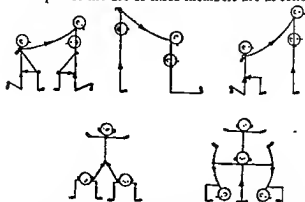
4. Front drop.*

Lie face downward on bed, arms bent so that hands rest on the bed on each side of the chest as if ready to commence "push up's." Take low bounces, hold a semi-tucked position in mid-air, open up slowly, and land flat on the bed so that toes, knees, and chest land simultaneously. Push up vigorously and reach the standing position.

5. Half turntable.*

(A) Land in front drop, and while pushing off from the bed, (B) grasp a tuck, (C) turn head and shoulders, (D) when completing the turn, open up and land in a front drop position again. Push off with the hands, and return to the feet.

6. Examples of the use of three members are as follows:



Examples of the use of four or more members may be found in the books listed below.

7. When making large pyramids such as those described above, either the instructor or middle member of the pyramid should give certain signals as "1, 2, 3, hold, down." There should be a maximum of four commands, and each command signifies that every member moves into a specific position. Then when "hold" is given, the final posed position is reached simultaneously by all members to give the best effect. The position is held about five seconds, and on the command "down," each person returns to the attention position immediately in preparation for the succeeding pyramid.

TRAMPOLINE

Helpful Hints: Have spotters on all sides of the trampoline when you work. Grasp the frame before dismounting; do not jump off. Seek optimum control of yourself before concentrating on height. Take frequent, short turns rather than long ones. Do not work out alone until you have become expert at all fundamentals.

1. Seat drop.

Sit on trampoline bed. Trunk erect, legs together, toes pointed, and hands next to the hips on the bed. Take low bounces land-

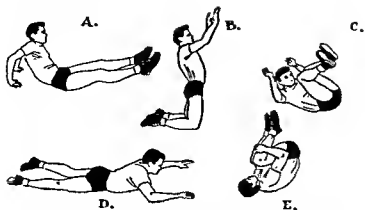


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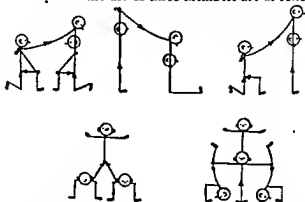
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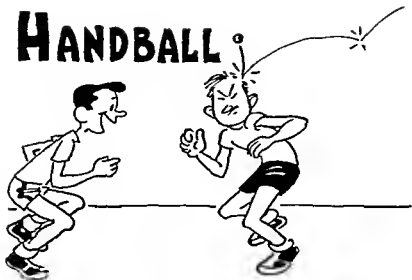
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HANDBALL



Handball—perhaps the oldest of all games played with a ball—has had a very interesting place in history. Although undoubtedly having little resemblance to our modern game, the game Odysseus saw Nausicaa and her maidens playing in the *Odyssey* is a kind of handball.

The form of the game from which the modern version developed originated in Ireland about the 10th century. It was played on a larger court and differed primarily from the present game in that the feet were also used in returning the ball.

The game was brought to America around 1840 by Irish immigrants. Phil Casey, who became world's champion, is credited with being the father of handball in America. He developed tremendous interest in the game in and around Brooklyn in the late 1880's. Irish handball was a four-wall game. The one-wall game is strictly an American invention which emerged around 1900 as an outdoor, and, particularly, a bathing beach recreational activity. In America most boys are introduced to handball as an outdoor activity played with a tennis or soft rubber ball against a building or wall.

Handball is unique among games in that it was first a pro-

6. Back pull over.

(A) Land in a semi-tucked position on the back a few inches below the belt (a position mid-way between a back drop and a seat drop). (B) Hold a tuck with the hands, throw the head back, and bring the knees up to put you into a somersault. (C) Land on the feet.

7. Swivel hips.

(A) Land in a seat drop. (B) As you near a standing position, quickly turn the head and hips. (C) Thrust feet out in front again, and land in a seat drop. Return to a standing position.

A FEW SPECIAL TERMS

Kip. A forward movement from the hips that throws the body from a hanging position to a support.

Pike. A position with the legs straight and the hips flexed.

Spotting. The art of guarding a performer, especially while a new stunt is being learned. Becoming a good spotter is an essential part of gymnastics.

Trampoline. A table-high metal frame that by means of springs holds taut a rectangle of webbing or canvas on which stunts are performed.

Tuck. Pulling the knees close to the chest. Also the act itself.

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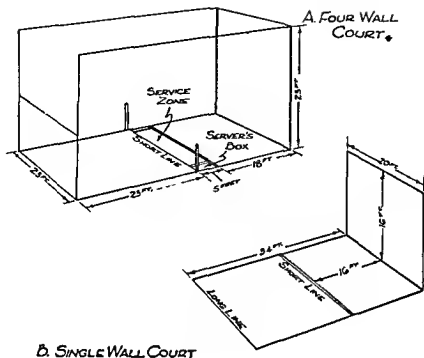


Fig. 1. Court Dimensions (AAU)
 (*YMCA court dimensions are 20x20x40 feet)

volley (still in flight). In one-wall handball obviously the ball must be returned directly to the front wall.

The server scores a point whenever his opponent fails to return the ball successfully. If the server fails to return the ball, he loses the serve. Twenty-one points constitute a game. If the score is 20-20, only one additional point is necessary to win a game.

In four-wall handball a short may not be played.

In the doubles game, when the first server is put out, the serve goes to the opposite side. From this point on both members of each side serve before the serve passes to the opponents. The serve in doubles does not have to go alternately to the

fessional game and only later became an amateur sport, which is the reverse of the usual procedure.

THE GAME

The game of handball is played on either a one-wall or four-wall court by two, three or four players. The game with two players is known as singles—with four players it is known as doubles. The three-handed game is called "cut-throat," and although not an official game, it may be more strenuous than singles. It differs from the other two games in that the one serving is playing the other two. The server plays as in singles, the receivers play as in doubles. Each man scores only when he is serving.

The dimensions, as well as the names of the various lines and areas in the court, are shown in Figure 1.

The game is started by the server dropping the ball to the floor in the service zone and hitting it on the bounce against the front wall so that it returns and hits the floor anywhere between the short line, and the back wall (or the long line in one-wall handball). In the act of serving, if one completely misses the ball, he loses the serve. Both feet must be within the service area while serving. If this rule is violated, a fault is called which counts as a *short* (see terms). In the four-wall game, the ball must hit the front wall before hitting any other wall or the ceiling, and it must return *over the short line* to be a good serve. It may hit one side wall *on the return from the front wall*, but if it hits two, the ceiling or the back wall, before hitting the floor, it is known as a short and is played over. Two shorts put the server out. Loss of serve is called a *hand-out*.

Returning the serve

In singles, after the serve the players alternate in returning the ball to the front wall. The ball may hit the rear wall, side walls, ceiling, or any combination of these before returning to the front wall so long as it hits the front wall before hitting the floor. It must be returned either on the first bounce or on the

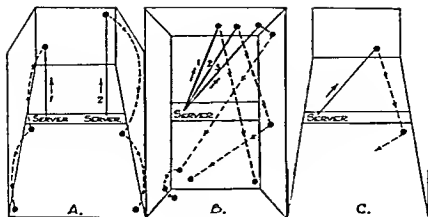


Fig. 2. Basic Serves

BASIC SKILLS

The basic skills in handball include the serve, the return (including the kill shot), proper court position, and footwork.

The Serve

Developing a good serve is very important in handball. In the four-wall game there are several basic serves which are used much as a pitcher uses his different pitches. The most commonly used serves are: a low serve down the side wall (Fig. 2A, 1), a high lob close to either side wall (Fig. 2A, 2), a sharp angle serve lighting deep in the court (Fig. 2B, 1, 2, 3), and a lower sharp angle serve hitting just over the short line (Fig. 2C). A beginner should use an underhand serve which is not unlike an underhand pitch, except that the ball is dropped to the floor with one hand and hit with the other as it rebounds from the floor. As skill increases, a side arm serve (like a side arm throw) should be perfected, as it permits greater speed and deception. Eventually English may be applied to the serve by rotating the wrist rapidly one way or the other as the ball is struck. Correctly executed, the ball will hop one way or the other when it bounces in the court.

opponents, but may be served anywhere over the short line. After the serve, either opponent may return the ball and either player of the two teams alternate returning the ball until a point is scored or the server is retired.

On the serve in doubles the server's partner must stand within the server's box with his back against the wall until the ball crosses the service line. A violation counts as a short. If the ball hits the server's partner on the return from the front wall and he is not in the service box, the player serving is out.

The receiver (or receivers) must stand back of the short line while the serve is being played, after which all players may be in any position in the court they wish. In returning the ball, it may only be hit with one hand, and it can be struck only once. However, if your partner misses the ball, you may still play it. If two hands are used, or if the ball hits the arm or any other part of a player's body, instead of or in addition to his hand, it is either a point for the other side or loss of serve depending on which player is involved. The player involved should always acknowledge such an infraction immediately.

If an opponent is hit by a ball which has been returned toward the front wall by you (or your partner in the doubles game), it is ruled dead and the point is played over. In doubles, if you hit a ball, and it then strikes your partner, no hinder is allowed. If a player interferes unintentionally with an opponent so as to prevent him from having a fair chance to return a ball, the hinder rule also applies *even though there is a question as to whether the player interfered with could have returned the ball fairly*. In a tournament, it is the referee's job to call hinders. When there is no referee, it should be up to the one playing the ball to decide if he was hindered. Be sure to be a good sport about calling such interference as well as accepting your opponent's decision when he calls one. When any player is hit by a ball returning from the front wall, it counts against his side—either loss of serve or a point for the opponents.

In some non-regulation courts, you may want to make local ground rules. For example, if a light fixture projects from the ceiling, a ball hitting it may be ruled a hinder and played over.

flight player. The proper stance to assume in awaiting either a serve or return is a slightly crouched position with the feet comfortably spread, one foot slightly in front of the other, and the weight forward on the toes. From this position you can start immediately in any direction.

Always keep in mind that the court position you want to secure is a position immediately in front of your opponent and approximately in the middle of the court in singles (or in the middle of your half of the court in doubles). This is the offensive position, and the player who maintains it the greater part of the game will almost invariably be the winner.

Of course, in receiving the serve you drop back fairly close to the back line (or wall) as the serve must cross the short line to be good. Immediately on playing the ball you should move forward to the middle of the court position and return to it after each play, if feasible.

Footwork

A vital factor in making good shots and assuming proper stance and court position is good footwork. Always step into the shot so that the weight is traveling forward when the ball is hit. In most returns, the body is sideways to the front wall so that the arm swing will throw the ball directly at the front wall.

Remember the comparison with throwing a baseball or stroking a tennis ball. The same position of the feet and body and action of the arms and trunk are involved in playing handball. If you fail to turn sideways to hit your shots, you will poke at the ball instead of swinging and will not only be less accurate but lose much of your power in hitting the ball. As a result, you are likely to give your opponent an easy return or miss the shot entirely and lose the point.

STRATEGY

The good player in handball is the one who maintains the offensive position. Whenever you find yourself in the defensive position (behind your opponent), return a high lob along either

The Return

Actually the strokes used in returning the serve are essentially the same as the serve itself except that the ball is coming toward the receiver rapidly, and he must move into position to meet it correctly. He may use either the underhand or side arm stroke just mentioned; or, if the bounce is high, an overarm stroke which is somewhat like an overhand throw in baseball is recommended. In executing all serves and returns, the body and arms should be relaxed, and the ball should be stroked forward somewhat as one executes a stroke in tennis, rather than slapped or batted.

Advanced players occasionally double the fist and punch the ball on either the serve or return to get greater speed and thus create a change of pace shot. This shot should be used sparingly as it is more difficult to control. It is especially useful as a passing shot when your opponent gets out of position and gives you an easy return.

The *kill* shot is your offensive weapon, and considerable time should be devoted to developing it. It is usually played as an underhand stroke using a deep crouch, but a side arm kill can be equally effective. The important point to remember is that a kill should not be attempted unless the ball can be hit from a crouch so that it travels almost parallel to the floor and will hit close to the bottom of the front wall. A ball which is hit from any height above the knees will usually bounce too high to be a kill *even though it hits very low on the front wall*. Usually the kill shot should be reserved for use when you are in the offensive position (in front of your opponent). The exception to this rule is in playing a ball rebounding from the back wall in the four-wall game. With a little practice, a very effective kill can be developed on this shot.

Proper Court Position

Proper court position is fundamental to success in handball. No matter how good a serve and return you develop, you must learn proper stance and court position in order to become a top-

4. Occasionally play a game in which both players return all the shots with their weak arm.
5. Practice kills, serves, and other shots by yourself until you can consistently hit them accurately.
6. Stroke each ball in a game with the idea of hitting a particular spot on the front wall.
7. Study your opponent's game and try to play his weaknesses.
8. Choose a partner in doubles who complements your game.
9. Never favor your weak side. Play position and develop the weak arm so it is no longer a weakness.
10. Concentrate on playing position and continually work to secure the offensive position.
11. Have better players watch you play and criticize your game.
12. Mix up your serves and returns—use a change of pace.
13. Concentrate on stroking the ball on the return after it has reached the height of its bounce and is beginning to fall. It is moving slowly at this time and is in a better position for a good return or kill shot.

COURTESY AND SPORTSMANSHIP

Since handball is a fast game played in a relatively confined space, considerable bodily contact may result in a hard-fought game. This is particularly true in the case of beginners because they do not handle themselves well and are more likely to be caught off balance or out of position. Just as the true test of a soldier comes under fire, so the true test of a sportsman comes in a strenuous, closely-contested game. It is easy to be a good sport when you are winning; it is not so easy when the competition is close or you are being soundly beaten.

Deliberately running into your opponent in order to claim a hinder, failure to get out of his way when he is playing the ball, or hitting the ball at your opponent intentionally are examples of poor sportsmanship sometimes seen in play. Never permit yourself to resort to such tactics in order to win. A true sportsman lives up to the spirit as well as the letter of the rules. The man who uses such tactics may gain a momentary advantage or

side wall or use a hard driving passing shot to force your opponent to relinquish his offensive position so you can step into it.

Always play each shot with the idea of hitting a particular spot. Too often players just return the ball. Real skill comes only from continual practice with a definite end in view on each shot or series of shots.

Always try to make your opponent play your type of game and keep him guessing. If possible, keep him running and force him to play his weak shots. Mix up your strokes so he has difficulty anticipating your next play.

In doubles, choose a partner who complements your game. Usually one partner covers most of the front court and the other does most of the back court play. An imaginary line drawn from one corner of the front wall to the opposite corner of the back wall would divide the court into two triangular areas roughly defining the areas each partner is responsible for covering. One concentrates on kill shots, the other must cover the court rapidly, have great endurance, and a good back-wall kill shot.

In one-wall handball the strategy is similar, except that the return must have greater accuracy since there are no side walls or ceiling for the ball to bounce off and continue to the front wall. Deep passing shots are more commonly used since there is no back wall to return the ball to your opponent once it passes him. Be sure to adapt your strategy to the new game if you switch from one-wall to four-wall play or the reverse.

TIPS ON IMPROVING YOUR GAME

The following are practices which should help improve your game:

1. Choose opponents who are better players and who will continually push you to improve.
2. Study the style and play of highly skilled handball players and copy their strengths.
3. Plan each play and series of returns instead of aimlessly returning the ball.

of a player, rather than to the nature of the game itself. If the following safety rules are followed, few if any injuries should occur in handball.

1. Wear proper equipment with special attention to properly-fitted shoes, clean equipment, eye guards if wearing glasses, and gloves to avoid hand injury if using a hard ball. Gloves are preferred even if the ball is soft. They protect your hands and fingers and protect your opponent from your fingernails. Because of the cupped position of the hand in striking the ball, fingernails may be a real hazard to your opponent's eyes in close play.

2. Never enter a court while play is in progress. A player concentrating on the ball may be hurt on the door or door jamb, or he may bump into you. By the same token, care should be exercised in leaving a four-wall court to avoid injury to some one passing by the door on the outside.

3. Warm up carefully before playing. Sore arms and bruised hands often result from failure to observe this fundamental rule. Just as in any other sport, the warm-up is important in handball. If the game is played outside during cool weather, some form of sweat clothing should be worn as an added precaution. As one grows older, the warm-up becomes increasingly important in preventing injuries.

4. Keep your eye on the ball. Since your opponent is trying to return it by watching it continually, you can avoid being hit by the ball or getting in his way. This will not only reduce the hazard to you but improve your game by helping you to anticipate play and improve your position.

5. Stroke the ball rather than pound it or slap it. This not only reduces hand injuries but improves your shots. As in all other games, good form protects against accidents; bad form courts them.

6. Give the person playing the ball the right of way and avoid crashing into an opponent from the rear when you are playing a shot. You are entitled to a hinder (playing the point over) if you don't have a clear shot at the ball; so why risk injury to either your opponent or yourself.

win a game but may lose the respect, if not the friendship, of his opponent. Play to win but play fair at all times!

SELECTION AND CARE OF EQUIPMENT

One of the reasons for the popularity of handball is the relatively inexpensive and small amount of personal equipment needed in order to play the game. The only absolutely essential equipment is a ball, although a gym suit, basketball type shoes or regulation handball shoes, and gloves are recommended. When the game is played outdoors on improvised playing areas, boys typically use a soft rubber ball or an old tennis ball with the outside cover removed, and play in their street clothes, without gloves. However, recommended equipment for greatest enjoyment, safety, and best competition includes a regulation gym suit, regulation handball shoes, special handball gloves of the open back non-reinforced palm type, and a regulation 101 (small hard) rubber handball or the larger soft handball. The larger soft ball is recommended for all one-wall handball and for four-wall elementary and high school play, unless the participants are unusually skillful. Advanced players should graduate to play with the regulation 101 ball in four-wall handball.

SAFETY PRECAUTIONS AND MEASURES

Handball is a relatively safe game when played in a regulation court under proper conditions, which include the wearing of regulation equipment, warming up properly before playing, and living up to the spirit and meaning of the rules during participation. It can be extremely dangerous when played against the side of a building or a wall, or when the playing court is in the street on a sidewalk or in an alley, or adjacent to such areas. In playing or retrieving a ball during a game on such a court, one may unwittingly dart into traffic or knock over a pedestrian and cause a serious accident. Although the temptation may be great to play under such conditions in congested areas, the risks involved are too great to warrant it. Play only on regulation courts, if possible, and avoid this danger.

Most accidents in handball are due to carelessness on the part

LACROSSE



American Indians were the first lacrosse players. They adopted the game of lacrosse as a war-training measure because of the great speed and endurance that it required. The distance between the goals varied from 500 yards to several miles, and the game often continued for days at a time. It was not uncommon to have as many as one hundred Indians on a team.

Early French missionaries named the game *La Crosse* because the stick used in the game looked something like a bishop's crozier, which is an ornate staff shaped like a shepherd's crook. The stick was three or four feet long with a hook at the end, across which rawhide or strips of bark were woven to make a pocket. By means of this pocket a ball could be carried and passed. In the Indian game the stick was also used to strike an opponent and ward off blows.

Canadians were among the first to see the possibilities of the game and set up rules to "civilize" it. So it is not surprising that lacrosse vies with ice hockey for the honor of being the national game of Canada. From Canada it has spread to the countries of the British Commonwealth and to the United States. While it is played in many of our colleges, it is proving to be especially popular with us as a high school sport for both fall and spring.

7. Soak your hands in warm water a few minutes before playing if your hands become sore or bruise easily. This increases circulation and tends to alleviate these conditions.

HANDBALL TERMS

Acc. A serve which the receiver is unable to get his hand on at all.

Crotch Ball. A ball which hits in the angle formed by any two surfaces of the court, such as the front wall and the ceiling, or the floor and sidewall, or directly in one of the four corners of the court.

Kill. A returned ball which hits very close to the floor or the front wall and which it is impossible to return. A ball hitting both the floor and front wall simultaneously (a crotch ball also) is ruled a kill. A questionable kill should be played over without argument.

Short. A ball that fails to clear the short line.

Hinder. The accidental interference with an opponent's attempt to hit the ball. Also if a returned ball strikes an opponent before striking the floor or front wall.

Hand-out. When the server in singles or the second server of a pair of doubles loses a rally, it becomes a "hand-out." The serve passes to the other side, which becomes "hand-in."

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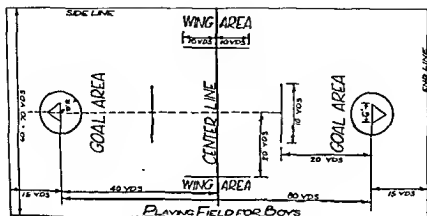
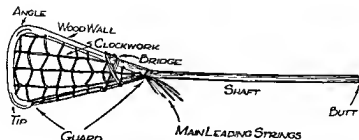


Fig. 2. The Playing Field (Boys)

THE GIRLS' GAME

An unusual feature of the girls game that makes it closer to the original Indian game is that there are no boundaries. As a player you may run in any direction and never be "out-of-bounds." Trees, bushes, and even spectators are often useful obstacles against an opponent. It is customary, however, for the teams to decide on "natural boundaries" such as roads, hedges, grandstands, and so forth. There are also some standard dimensions and marks that limit the movement of the players. The distance between goals is 90 to 110 yards. The goal crease has a radius of $8\frac{1}{2}$ feet. In the center of the field is a circle with a radius of 10 yards called the *center circle*, and in the middle of the circle is a line on which the centers stand at the beginning of the game (Fig. 3).

A girls team consists of 12 players: 5 attacking players, 6 defending players, and a center who plays both attack and defense. The 5 attacking players are called First Home, Second Home, Third Home, Right Attack Wing, and Left Attack Wing. The 6 defense players are called Point, Cover Point, Third Man, Right Defense Wing, Left Defense Wing, and Goalkeeper. Starting position of the players is shown in Figure 3.



THE CROSSE

Fig 1. The Crosse

The playing stick (Fig. 1) is now called a *crosse*. It shall be an overall length of not more than 72 or less than 40 inches except the goalkeepers stick which may be any length desired. At its widest part it should not exceed 12 inches. The net is woven of leather, string, gut, or nylon.

The ball is of black, white, or yellow sponge rubber, not more than 8 inches in circumference, and not heavier than 5 ounces.

THE PLAYING FIELD

Lacrosse is played on a large level field. A football field can be easily marked for lacrosse. The dimensions and markings for the boys and the girls game are different.

In the boys game goals are 80 feet apart with the playing area extending 15 yards behind each goal. The width of the field is 60 to 70 yards. The goals are formed of two posts, 6 feet apart, joined at the top by a rigid cross-bar 6 feet from the ground. A net stretches from the posts and the cross-bar to the ground 7 feet to the rear and forms a cone in which the ball is caught. Around each goal there is a circle with a radius of 9 feet, measured midway between the two goal posts, called the *crease*.

A line divides the field into two halves, an offensive half and a defensive half. Two lines at the sides of the field serve to indicate two areas known as *wing areas* (Fig. 2).

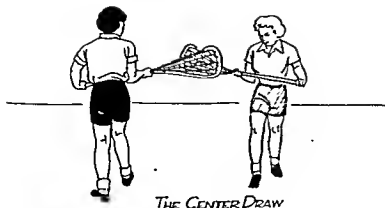


Fig. 4. The Center-draw

When the referee says "play," she may either run with the ball, pass to a team-mate, or shoot for a goal.

Very often there are two opposing players equally near the ball when it goes beyond the boundaries. When this occurs, the ball is put into play by a *throw-in*. For a throw-in the two opposing players stand side by side facing the center of the playing field. The referee stands approximately ten yards in front of them. On the word "play," she tosses the ball into the air between the two players who attempt to catch the ball in their crosse.

The rules of lacrosse are few and simple. The foul which most frequently occurs is rough *crosse-checking*. Crosse-checking is a legal tactic which you may use when your opponent has the ball in her crosse. You may hit your opponent's crosse with your crosse and attempt to dislodge the ball. However, if your crosse-checking is hard and uncontrolled, the ball will be awarded to your opponent for a free position.

When the referee blows her whistle to announce a foul, all players on both teams must stop running and stand still, even though they are not involved in the immediate play. They may not move again until the referee has awarded a free position and signals for play to begin.

Violation of the goal crease is the second foul most frequently made. The goal crease is a means of protection for the goal-



THE FACE-OFF

Fig. 5. The Face-off

(striking an opponent with a stick while trying to get the ball) *crosse-checking* (holding the crosse across the body of an opponent to prevent or stop movement), tripping, and pushing. Technical fouls include too many time outs, leaving the wing area or defense area before the whistle blows, entering the crease, touching the ball with the hands, being offside, or moving after the whistle blows. For these, a player is not always sent out of the game; instead, the ball may be given to the other team.

One more thing you must always remember. Your stick may be used to hit your opponent's stick. It must *never* be used to hit his body. The glove is considered as part of the stick. You are not allowed to deliver successive blows on the gloved hand, without a short interval between, but you may strike the glove every other step. If you hit your opponent's arms or body, the official will blow his whistle and yell, "You're slashing. Take a minute." You must then leave the field and report to the penalty box. Your teammates must then play with only nine men against the opposing ten, until your minute has elapsed. On occasion, the penalty may be two or three minutes.

The Playing Positions

The three men who play in the half of the field containing the goal they are attacking, are known as attack men. They usually have shorter sticks and are skillful at dodging and "feeding" passes to unguarded men. Because they dash across in front of the goal, these men are known as "cutters." The attack men have

keeper and must be strictly observed. If you are attempting a shot at the goal, you may not step into the crease or allow your crosse to extend over the crease before, during, or after your shot. If you violate the rules of the goal crease, the score does not count if a goal is made, and the goal keeper is awarded a free position.

THE BOYS GAME

There are 10 players on a team in boys lacrosse: the goal keeper, three defense men, three mid-fielders, and three attack men.

Each player is paired against an opponent, except the goal-keeper who always stands in front of his own goal. The goal-keeper may not be interfered with when he is standing within the goal crease, and a goal does not count if it is made within the crease or while any attacking player is within the crease.

A team must keep at least four players in the defensive half of the field and three in the attacking half.

The length of a regulation game is 60 minutes, with four 15 minute quarters. A goal counts one point, with the team scoring the most goals the winner. If the score is tied at the end of the playing time, two five-minute periods are played after a five-minute intermission.

At the beginning of the game and of each quarter and after each goal, the ball is put in play by a face-off at the center of the field. One midfield player of each team must remain in the *wing areas* (see Fig. 1) until the starting whistle blows. Similarly three attack men and an opposing defense man must remain between the center line and the goal until the starting whistle.

Centers face-off (See Fig. 5) at the center of the field by holding the crosses parallel along the ground so that the nettings are back-to-back and the hands of both players touch the ground. Each center faces the goal he is attacking. The referee places the ball between the two sticks; and when he blows his whistle, the centers maneuver their sticks to gain control of the ball.

Fouls are *personal* or *technical*. The player making a personal foul goes to the penalty box—a bench near the timer's bench—for a period of 1 to 3 minutes. Personal fouls include *slashing*,

rotating the wrist nearest the throat of the stick. Cradling keeps the ball centered in the pocket of the net at all times so that all passes and shots at the goal originate from the same spot. This assures consistency and accuracy. When running with the ball, the cradling motion is in rhythm with the running. This enables you to run, dodge, or stop without dropping the ball.

Throwing

After you have learned to keep the ball up near the middle of the net, you are ready to throw. There are many different ways to do this, but here is a simple method. Stand sideways to the target rather than directly facing it, grasp the stick with the left hand near the bottom, known as the "butt end" of the stick. Your right hand should be two feet higher. Throw with your right hand in a manner similar to throwing a baseball. At the same time move your left hand in a smooth downward arc toward your left hip.

You will probably be greatly dissatisfied with your first throws. Keep trying until you can coordinate the forward movement of your right arm with the slight downward and backward pull of your left hand. You will find that after five or ten minutes of practice the ball will go where you want it to, provided you do not try to throw too far at first.

In passing the ball to a teammate you should pass it to a position six to ten feet in front of him, depending, of course, on distance and speed of the player. Throw ahead of him so that he can get the ball while going at full speed. Always pass the ball when you can't advance it any further. Remember the most accurate passes are made by stopping before you pass.

Goal Shooting

Close to the goal the most effective shot is a hard fast one. Sometimes, however, a slow flip shot will catch a tense goalie off guard; so change your attack. Accuracy is very important and should never be sacrificed for speed. Aim your shots at the corners of the goal or close to the goalie's head. These spots are difficult to protect. From some distance out, the bounce shot is best.

another important job. If their team should lose possession of the ball, they check or guard the opponents in an attempt to keep them from passing or carrying the ball to the opposite end of the field. They rush the opponents into making bad passes or knock the ball out of their sticks. This is called "riding."

The three defense men remain in that half of the field which contains the goal they are defending. They usually have long crosses to jar the ball loose from the sticks of the attack men they are guarding.

The goalie stands in the crease and tries to catch or deflect shots at the goal. His stick may be of any length with a net 12 inches wide. He wears a protective pad over his chest and a cup supporter in addition to the helmet, face guard, and gloves worn by all players. The goalie is the only person allowed to touch the ball with his hands. Defensive players may step in the crease if they do not have the ball. Attack men may never legally step into the crease. The three defense men and the goalie make up the four players who remain in the defensive half of the field.

The midfielders play any place on the field. To play the mid-field position, you must be in good physical condition. You must join with your attack men on offense at one end of the field in an attempt to score. If your team loses the ball, you must rush to the opposite goal to help keep your opponents from scoring. Because midfielders must run constantly, a substitute group of midfielders is usually sent into the game as soon as the first midfielders show signs of tiring.

Which of these positions will you choose? If you are already clever with your stick and can control the ball while dodging and twisting, perhaps you should play attack. If you are big, aggressive, and like rough play, defense is the place for you. If speed and endurance are your strong points, you should choose the mid-field. The goalie must be primarily courageous and quick to react.

BASIC SKILLS

Cradling

Cradling describes the rocking motion of the crosse caused by

between your opponent and the goal. This will slow down her speed, force her away from the direction of the goal, or make her pass to a teammate so that your team can intercept. If you succeed in slowing down your opponent, you will have an opportunity to crosse check and gain possession of the ball.

In boys lacrosse, body-checking is a defensive maneuver to slow down or stop your opponent who has the ball, or who is about to catch it or is within 15 feet of a loose ball. It is permissible to body-check from the front or side and above the knees provided one foot remains in contact with the ground. Body-checking from the rear or after the ball has been thrown is illegal. Hit your opponent hard enough to knock him off balance or to keep him out of play but not so hard as to knock yourself off balance. Be sure not to hit below the knees and thereby commit a foul. If you are racing side by side with an opponent after a loose ball, you may body-check with your hip.

TIPS ON HOW TO IMPROVE YOUR GAME

1. Help keep the play open by making short accurate passes. They are difficult to intercept.
2. When you pass the ball to a teammate, be alert to receive a return pass.
3. As an attack player, always be ahead of the defense.
4. As a defense player, try to anticipate the action of the attack players so that you will be able to intercept their passes and start your own attack.
5. There is no substitute for practice. The best way to practice throwing is to throw against a wall. Stand about 15 yards from the wall and throw easily until you feel you have learned to control the ball. Using a wall will also give you practice in catching a bounding ball.

Have a friend bounce and roll a ball to you, sometimes toward you, sometimes away from you. Scoop it up and turn with it.

SPORTSMANSHIP AND SAFETY

Every player is expected to display good sportsmanship and courtesy both in words and actions. The game is started by all

especially if the ground is rough. Before shooting, maneuver so the goalie has to look into the sun or is partially screened by another player.

Catching

In catching the ball, turn the face of the net toward the ball. Let your arms and stick give with the force of the ball just as it arrives or it will bounce off. As you do so, let the backward movement of your arms proceed directly into the cradling motion so that you will be ready to throw quickly. Be sure to keep your eye on the ball. As you gain confidence in catching, you may extend the stick further from the body and as the ball arrives, try to wrap the net around the ball in a cradling motion.

Relax—this is the most important rule in catching or throwing. At no time should your arms be stiff or your elbows locked.

All catching should be done while running at top speed. You should never wait for the ball to come to you, but run and meet it. If you wait for the ball or back away from it, an opponent can step in front of you and intercept it.

Scooping

Although lacrosse is ideally an aerial game, you have many occasions to pick up the ball from the ground. Scooping the ball is started by running with the knees bent, so that the handle of your stick is close to the ground, and out to the side of your body. Let the head of your crosse touch the ground a few inches in front of the ball and run the net under the ball with a scooping motion. As soon as you feel the ball settle into your net, cradle it into control while you continue to run. While scooping, always stay low, bending at the knee rather than the hips and using both hands.

Body checking

In girls lacrosse, there is no actual body contact. Body-checking is limited to following the movements of your opponent's crosse with your crosse when she is in possession of the ball. As you body-check you are running backwards, always keeping yourself

each player must have a helmet to which a face mask is attached. Lacrosse helmets may be purchased, or a face mask may be attached to a regular football helmet.

In addition, boys wear gloves similar to those for ice hockey. They should be long enough to protect the wrist. It is recommended that boys wear arm guards as well as gloves and helmets.

LACROSSE TERMS

Center Draw. Procedure for starting the game from the center field (girls rules).

Cradling. Keeping the ball in the proper position for throwing by moving arms and shoulders back and forth and twisting the wrists.

Crosse. The stick.

Face-off. The way of starting the game each period and after each goal (boys rules).

Free Position. Procedure for putting ball in play after it has gone out of bounds. Players may run or pass, all others being 5 yards away.

Goal Crease. A circular area marked off around the goal.

Scooping. Picking the ball off the ground with the crosse.

Slashing. Illegal use of the crosse in checking.

Wing Area. The area between two lines parallel to the side lines on each side of the field 20 yards from its center and extending 10 yards on each side of the offside line.

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players of each team lining up facing each other in the center of the field and introducing themselves. As an individual you help to set standards for your team. Be sure that your standards are high and worthy of your team.

To avoid injury, when you are learning to catch the ball, hold your crosse at your side, never directly in front of you, so that if you fail to catch the ball, it will not hit you. When you scoop up a ground ball, bend your knees and bring the crosse close to the ground. After securing the ball, you should resume a standing position with caution so that you will not hit someone who is also trying to pick up the ball.

SELECTION AND CARE OF EQUIPMENT

When you learn to play lacrosse, you may want to buy your own lacrosse stick. The balance of a stick is an important factor. Of course, if it is too heavy, it will be cumbersome. Be sure that the wood at the angle is smooth and that the guard and bridge are strong and firm. As a general rule, you can find the proper length of the shaft for you by placing your hand at the collar of the crosse just below the main leading strings. With your arm outstretched the butt of the cross should reach the underarm pit.

At the beginning of the season check the rawhide webbing of your crosse, known as the *clockwork*. It should be flexible and smooth. If the rawhide is stiff, you should apply a thin coat of linseed oil which will protect it from dampness and wear. You may also apply oil to the wood of your crosse, but never to the bridge or guard which should be stiff and firm. Before playing a game you must tie the main leading strings around the collar to make the clockwork of your crosse secure. If the clockwork is allowed to remain loose, you will have difficulty in performing quick and accurate passes. After the game, untie the main leading strings, relieving the strain on the crosse, and hang your crosse on a nail or peg by the wood tip. Do not pack it away in a crowded corner, for pressure will ruin the shape of your crosse.

The goalkeeper always wears leg pads, a chest protector, and a face mask.

For boys, because of the rules which allow for body contact,

The young American took the rifle hanging over his fireplace as a familiar and necessary item. Learning to use it well was part of his early training. Today, with our frontiers withered and our virgin forests shrunk, the rifle is no longer looked upon as an essential tool to provide food and clothing. Today it does provide Americans, young and old, boy or girl, man or woman, with one of the most satisfying and rewarding sports known. Rifle shooting, whether at a target or a game animal, is practiced by millions throughout the country today. It is a typical American sport. And it is the backbone of America's national defense.

A UNIQUE SPORT

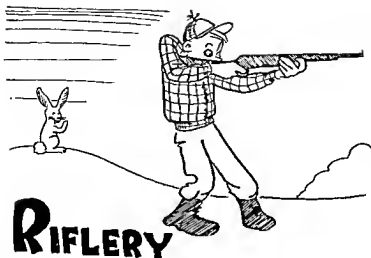
Rifle shooting is unique as a sport because it does not require special teams or groups. One person or a hundred, depending upon the facilities, can enjoy this fascinating sport. You need no particular uniforms or special equipment as in many sports, because rifle shooting can be practiced indoors as well as out.

THE RANGE

The place where you shoot is called a *range*. The line from which you shoot is called the *firing point* and the line on which your target is located is called the *target butts*. The distance between the shooter and the target varies. In the case of the .22 caliber rifle range it will be 50 feet indoors, while most outdoor shooting is done at 50 feet, 50 and 100 yards. Pneumatic-type air rifles are fired at a range of 25 feet. Spring-type air rifles (the familiar BB guns) call for firing at 15 feet. In order to figure out how much space you need to have a range, merely add about 10 feet to these distances to provide room for the shooter and for the backstop.

To shoot safely outdoors, find a hill that slopes 30 degrees or so. Clear it of brush and rock to offer good visibility and prevent ricochets. Build a simple wooden frame on which to place your target and set this frame a foot or two in front of your earth backstop. A word of caution: Do not fasten targets to growing trees. Bullets will bounce from them.

Indoor ranges can vary from fine, permanent range installations



RIFLERY

The United States of America was built, it is said, with three implements—the axe, the plow, and the rifle.

The axe, in the hands of the stalwart pioneer, felled trees to clear the way for fields of grain and to provide timber to build the houses, barns, and fences of our farms. The plow cut into the virgin soil of our foothills, plains, and prairies to grow the food for a young and hungry country. The rifle brought down the deer, bear, and other game to give the hardy frontiersman and his family food and clothing. It also stood as the only means of defense against his enemies, both savage and civilized.

THE PIONEER AND HIS RIFLE

As towns sprang from the ground and our civilization moved Westward, the rifle became even more important. The picturesque Indian scouts, like Kit Carson, the great fighters, like General George Custer, the speeding pony express rider, the prospector wandering in the desert lands, all had two traits in common—their desire to make America great, and their rifle marksmanship ability. The American rifleman carved a place for himself in the history of America. His prowess and skill became known around the world.

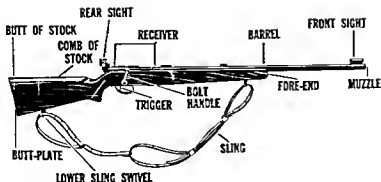


Fig. 2. The Rifle

is, load and fire only one round (bullet) at a time.

The size and weight of your rifle is important. Young boy and girl shooters of less than high school age generally prefer a rifle weighing $6\frac{1}{2}$ to $7\frac{1}{2}$ pounds. Boys and girls in high school can handle rifles in the $7\frac{1}{2}$ to 9 pound class.

If your rifle does not have a sling (Fig. 2), you can get one from your sporting goods store. If possible, get a rifle with a "peep" sight in the rear which can be adjusted up and down as well as from side to side. After you have become familiar with shooting, you will find these adjustments will mean more accuracy.

For ammunition you can use any .22 caliber cartridge. Cartridges come in three sizes, "shorts," "longs," and "long rifle." Target shooters find the "long rifle" the most accurate of the three. The "short" is satisfactory on the 50 foot range. The "long" is not recommended.

There are several types of "pneumatic" air rifles. Some achieve the air pressure required by pumping devices, others use carbon-dioxide gas to furnish the necessary propelling power. Most young shooters are quite familiar with the spring-type air rifle (the well-known BB gun).

TARGETS

You will want to use official NRA targets, because as you progress in your ability you will probably want to shoot in

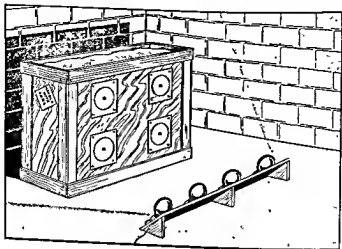


Fig 1. Simple Backstop

with steel plate backstops, target carriers on trolleys, and fluorescent lighting systems to simple backstops easily constructed from a large packing case. Several commercial firms sell portable backstops (bullet traps). There are special plans that make it possible to use rooms like gymnasiums, school cafeterias, and auditoriums as part time ranges without interfering with the regular use of the room. Figure 1 shows a simple backstop, easily constructed and satisfactory for .22 caliber rifle shooting. Plans for more elaborate indoor ranges, or for part-time ranges, may be obtained on request to the National Rifle Association, 1600 Rhode Island Avenue, N. W., Washington 6, D. C. Specify the type gun you will be using (.22, pneumatic air rifle, or spring-type air rifle) and whether shooting will be indoors or outdoors.

THE RIFLE

The rifle itself is the most important piece of equipment. There is a large variety of .22 caliber rifles which are safe and accurate. The prices vary from very little to as much as you care to pay. I would recommend a bolt or lever action. If you have a repeating rifle, always fire it during target practice as a single shot. That

competition from time to time. There are three types of targets for use at 50 feet. They differ mainly in the number of bullseyes on a single target card and are referred to as the "single bull," the "five bull" and the "eleven bull." Figure 3 shows the single bull and five bull 50 foot targets, the 25 foot "pneumatic" air rifle target, and the 15 foot target used for spring-type air rifle firing. Sporting goods stores generally handle these targets. If your dealer does not, he can get them for you.

SIGHTING AND AIMING

Like other sports, rifle shooting has certain basic instructions for the new participant. The first lessons to be learned are those of sighting and aiming the rifle. There are generally two types of rear sights, the peep sight, which is actually a round hole in a piece of metal through which you look at the target; and the open sight which is a square, V-shaped or U-shaped notch. Front sights are customarily a simple post, a bead on top of a post, or an aperture or peep. If the front sight and the rear sight are properly aligned with the target, it is likely that you will score a bullseye.

The rear sight may be likened to a hole in a fence. The nearer your eye can be to a knot hole the better you can see what's on the other side of the fence. The same thing is true in aiming a rifle. You are not seriously concerned about the hole in the rear sight, once you find it, but in what is beyond, and you focus your eye on the bullseye. When using the open sight the top of the front sight should be held level with the top of the rear sight. Also, notice the dotted lines in the sight picture illustrations (Fig. 4). They show exactly how the bullseye should be positioned



Fig. 4. Proper Sighting

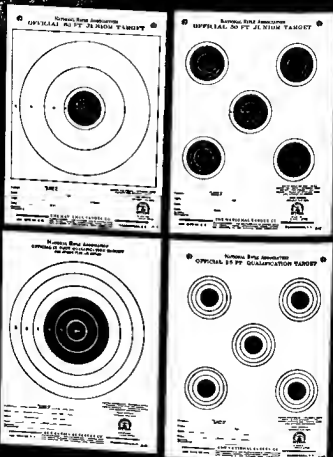


Fig 3. Bullseyes



Fig. 5. Using the Sling

- a. Half face to the right before assuming any position.
- b. Upon assuming any position there is some point to which the rifle points naturally and without effort. If this point is not the center of the target the whole body must be shifted so as to bring the target into proper alignment.
- c. Your right hand grasps the small of the stock. The right thumb may be either around the small of the stock or along the right side of the stock.
- d. The rifle rests in the palm of your left hand which is against or near the upper sling swivel.
- e. Your left elbow will be as nearly under the rifle as it can be placed.
- f. The trigger should ordinarily be squeezed with the second joint of the first finger. The first joint may be used, however.
- g. Your right cheek is always pressed firmly against the stock and placed as far forward as possible without straining. It is desirable to have the eye as near as possible to the rear sight.
- h. The butt of the rifle is held firmly against your right shoulder.

with the three sight combinations shown—peep rear and aperture front, open rear and post front, and peep rear and post front.

Take care not to cant (tilt) your rifle to either side.

Be sure to get your picture just as perfect and as uniform as possible, each time you fire a shot. Great care in sighting will give you a good start on the way to high scores.

THE SLING

The gun sling, the leather strap attached to the rifle, is for the purpose of holding the rifle steady while you are firing it, thus increasing your accuracy. The manner in which the sling is most commonly used is in a "loop" (Fig. 5). To get into the loop sling follow these simple steps:

- a. Loosen the lower loop;
- b. Put your left arm through the upper loop from right to left, so that the upper loop is near the shoulder and well above your biceps muscle;
- c. Pull the leather keeper down so that it will hold the upper loop in place;
- d. Move your left hand over the top of the gun sling from the left and grasp the rifle near the upper sling swivel so as to cause the sling to lie smoothly along your hand and wrist.

The sling should be quite tight around the upper left arm, to prevent it from slipping down toward the elbow. It should also be as taut as possible where it stretches from your shooting arm, across the back of your hand, to the front or upper sling swivel. This adjustment may be quite uncomfortable at first until your muscles become accustomed to it.

As you change positions you can adjust the sling to suit you.

SHOOTING POSITIONS

There are four standard shooting positions—prone, sitting, kneeling, and standing—and several general variations that are described and illustrated on these pages.

Certain general rules apply to all of these positions. Study the following list carefully and check yourself frequently to see that you follow them every time you get into a firing position.

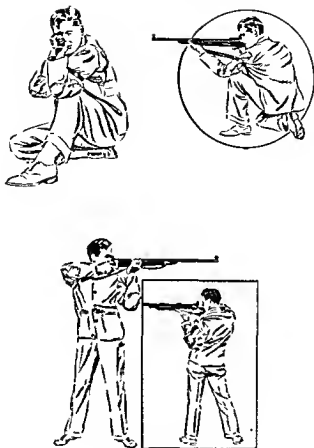


Fig. 7

The kneeling position (Fig. 7) is usually quite difficult for beginners. In this position you have far less support than in either the prone or sitting positions and will have difficulty in holding the rifle as steady. Rather than try to eliminate all barrel movement, concentrate on reducing it, as far as possible, to a slow uniform movement which wavers over only a small portion of the target. Sitting on the side of the right foot or on the heel of that foot is allowed.

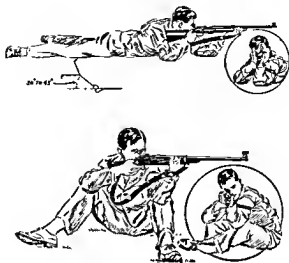


Fig. 6

- i. The shooter should be entirely relaxed. Do not grip the rifle tightly with either hand. Use as little muscular effort as possible to maintain your position.

The prone position (Fig. 6) is the steadiest of the four standard positions and, therefore, the one with which you should start. In this position the fundamentals of aiming, sling adjustment, breathing, and trigger squeeze can best be learned and become habitual. The beginner should spend most of his time in this position until these fundamentals have been thoroughly mastered.

A good sitting position (Fig. 6) is almost as steady as the prone position. There are several variations of this position. Most shooters prefer the orthodox style in which the shooter sits half faced to the right, feet well apart and braced on the heels, body leaning forward, and both elbows well braced against the inside of the knees. In some of the variations the feet are placed together or the legs crossed at the ankles. This is permissible, provided that your knees and thighs are free of any support.

sights and the target are in perfect alignment, this pressure is increased until the rifle is finally and *unexpectedly discharged*.

The good shot holds his aim on the target as accurately as possible and maintains a steady pressure upon the trigger until the rifle is fired. *No one can become a good shot until he has learned the proper trigger-squeeze.*

CARE OF THE RIFLE

Like any other piece of sporting equipment, your rifle needs certain care to keep it in tip-top condition. A rifle can last you a lifetime if properly cared for.

A few years ago it was necessary to clean the barrel of a rifle every time it was fired. Today ammunition called "non-corrosive" is available which eliminates these unpopular chores. This type of ammunition is wholeheartedly recommended.

A little light oil will preserve the surface of your rifle, whether wood or metal. Wipe the surface with a rag on which you put a few drops of oil. Avoid squirting oil into the working parts like the bolt and trigger.

If you are going to store your rifle for a long period of time, clean it thoroughly. Use a commercial "solvent" or cleaner on a cloth patch through the bore several times with a cleaning rod. Then run several dry patches of cloth through to clean and dry the inside of the barrel. Next put heavy gun grease on a patch and run it through the barrel. Rub the same type of grease on the outside metal parts of the rifle and store the rifle in a horizontal position. When you take the gun out again, clean it thoroughly and remove all grease before you fire it.

If there are small children around the house, be sure your rifle and ammunition are stored safely away where these youngsters cannot get them.

THE SAFEST OF SPORTS

Shooting is probably the safest of all sports. There are no sprained backs, split fingers, black eyes, or lost teeth. By memorizing a few simple rules every shooter can become a safe shooter.

What has been said above about holding the rifle on the target applies, in an even greater degree, to firing in the standing position (Fig. 7). Here you have the minimum of support, and no one can possibly hold the rifle absolutely steady. You will find that at first the gun will waver so that the front sight seems to dance across the target. Try to make that movement as slow and as small as possible rather than trying to stop it entirely.

Ordinarily the left elbow is not touching the body. However, under some rifle match rules resting the elbow against the body or on the hip is permitted.

HOLDING THE BREATH

If you breathe while firing a shot, the muzzle of your rifle will go up and down with the movement of your chest. This will throw the shot far from the center of the target. For accurate results it is absolutely necessary to hold the breath while firing.

When you have your sights fairly well lined upon the target, draw in a little more than a normal breath, let out enough to be comfortable and hold the rest easily until you get the sight picture you want and fire the shot. Don't try to hold your breath too long. That will only cause a rapid heart beat and pulse which will cause later shots to go wild. If you don't get a shot off soon enough, just relax, take a few more natural breaths, and then try again.

TRIGGER-SQUEEZE

Proper trigger-squeeze is the key to good shooting.

There is only one correct way to start the bullet on its way: that is to SQUEEZE the trigger with such a steady increase of pressure that you cannot tell exactly when the rifle will be discharged, while at the same time you hold the sights as closely on the bullseye as possible. The trigger-squeeze is carried out by a steady movement of the trigger finger only. If the sights get slightly out of alignment the pressure which has already been applied must be held, but no further pressure is applied until the sights again line up properly with the bullseye. All the time the

9. I will give my help to any less skillful shooter and will seek the advice of better marksmen for myself.
10. I will do my part to make America, once again, "A Nation of Riflemen."

COMPETITIVE MATCHES

Although many young people shoot merely for the love of shooting, the desire for competition causes many to participate in shooting matches.

In the qualification courses of the National Rifle Association you must fire ten targets with a certain minimum score. There are 15 different ratings, each more difficult than the one preceding it. You fire right on your home range and as you meet the requirements for a rating you are issued the appropriate NRA certificate. Awards are also available in the form of medals, lapel pins, and felt emblems.

The Association provides many competitive events for young shooters. Over 3,500 junior shooting clubs are affiliated with the National Rifle Association and about one-third of these are school clubs. These clubs have their own matches and many shoot in local leagues.

FOR MORE INFORMATION

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One of the greatest sources of pride for the National Rifle Association is the splendid record in the safe handling of firearms set by our junior members. Safe ranges, capable supervision, and, especially, adherence to the slogan that, "A real rifleman always handles a gun safely" has made it possible for nearly three million boys and girls, over a twenty-eight year period, to take part in this NRA junior marksmanship program with only two slight accidents reported.

The following NRA code should be memorized by every shooter. It will prove invaluable all through life, not only when you are handling a gun yourself, but whenever you are in the company of others who are carrying or using guns. Memorize it, obey it, and you will find shooting one of the cleanest, healthiest, most satisfying, and one of the safest sports in which you could possibly take part.

CODE OF THE JUNIOR RIFLEMAN

1. I will cock my gun and pull the trigger only when I am aiming at the target which I intend to shoot.
2. I will unload my gun and open the action as soon as I finish shooting and before I move from the firing line.
3. I will immediately make sure that any gun I handle is not loaded.
4. I will shoot only on a safe rifle range or, if hunting, only at legal game in places where persons and property are not endangered.
5. I will unload and open my gun before I climb a tree, fence, or similar obstacle.
6. I will remember that a .22 caliber bullet will travel for one mile; that it will go through nine inches of ordinary board; and that it will ricochet (glance) a long way across the water.
7. I will "play it safe" at any time when I am in doubt of the proper action with a gun.
8. I will see that every one around me obeys these rules for the safety and good of all.

"SOCCER"—"ASSOCIATION"

From this time on the Football Association and the Rugby Union went their separate ways. Each developed its own rules and each used a different-shaped ball. The former used a round ball and the latter an oval ball. The American game of football developed directly from Rugby. "Soccer" (the name is a corruption of the word "Association") has spread all over the world and in many countries has become *the* football game. Soccer is now beginning to catch on in the United States, and one of these days it may be a formidable rival for popularity to both American collegiate and professional football.

THE GAME

Soccer is a running and kicking team game in which the ball is controlled by the feet. In contrast to other games in which the ball is caught and thrown, the soccer ball may not be touched by the hands or arms. The object is to advance the ball toward the opponents' goal by passing or dribbling the ball with the feet or body, and scoring by sending the ball between the goal posts and under the cross bar.

The official playing field for girls is 100 yards long and 60 yards wide. For boys it is 120 yards long and 75 yards wide. The goal posts at each end of the field are 8 feet high and 8 yards apart, with goal nets attached to the rear. In the center of the field is a circle in which the ball is placed at the start of the game and after each goal is scored.

The soccer ball is an inflated leather- or rubber-covered ball with a circumference of not more than 28 inches. It is slightly larger than a volley ball and smaller than a basketball.

A team consists of 11 players, a goalie (the only player who can use his hands according to NCAA rules), a right and left fulback, a right, left, and center halfback, and 5 forwards: center forward, inside right, right wing, inside left, and left wing. Figure 1 shows the playing field and position of the players at the kick-off.

For girls the game consists of four quarters of 8 minutes, with a 2-minute rest interval between quarters and a 10-minute interval between halves. For boys, quarters are 12 minutes in length in

SOCCER



Though attempts have been made to trace football to either a Roman origin or even an earlier Greek one, there is little evidence for this. Football is as much an English game as baseball is an American one.

In 1851 Joseph Stutz wrote about a game the common people of England were playing on the greens. Two opposing teams tried to drive a ball—a blown bladder cased with leather—through the goal of the rival team, the two goals being about 100 yards apart.

This game, which bears such a close resemblance to our modern game of football, gave rise to two distinct kinds of football. In 1863 a number of English clubs formed the Football Association. Their rules provided only for a kicking game. One of the clubs, the Blackheath Club, protested against the rules and withdrew from the Association. Later the Blackheath Club was joined by other clubs who also wanted to use both hands and feet. This kind of football was called Rugby because those who favored handling the ball liked the style of game that was being played at Rugby School. In 1871, 17 clubs and 3 schools founded the Rugby Union.

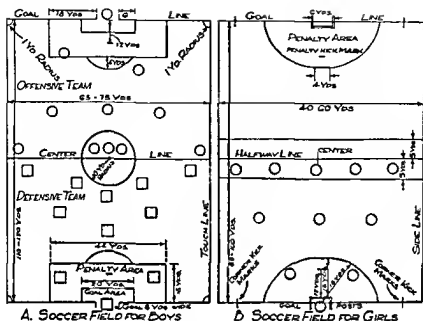


Fig. 1. Soccer Fields with Players Positions: A, boys; B, girls

As your team nears the goal, the opponents' goalkeeper gets ready to defend her goal. As a goalkeeper in her own penalty area, she may catch and throw the ball, or bounce the ball once and throw it, or drop-kick the ball.

During the game you commit a foul if you trip, push, charge, or jump at an opponent; kick, strike, or hold an opponent; or touch the ball with your hands or arms. If you commit a foul, a free kick is awarded to any player on the other team, but it is usually taken by the halfback. All opponents stand at least 5 yards away from the ball until it has been kicked. If two opponents commit a foul at the same time, a roll-in is taken at the spot where the foul occurred.

If you are a member of the defending team and commit a foul in the penalty area, a penalty kick is awarded. The ball is placed on the penalty mark 12 yards from the goal, and all players except the goalkeeper and player taking the kick are outside the penalty area. The ball is usually kicked by the center

junior varsity and 15 minutes in varsity, with a 10-minute intermission between halves in both.

GIRLS SOCCER

The game is started by a kick-off from the center of the field by the center forward. She may not play the ball again until it has been touched by another player. At the beginning of each quarter and after the goal has been made, the ball is put in play by a kick-off. Neither team may cross their lines until the ball has been kicked.

Let us suppose you are a player who has received the kick-off. Remember you cannot touch the ball with your arm or hand; so you must kick it to a teammate or you may "dribble" it down the field by kicking it about 3 feet ahead of you each time, tapping the ball with the inner part of your foot. One or more of your opponents may try to tackle the ball, but she is not allowed to touch you.

As the ball is passed or dribbled up and down the field, it occasionally will be kicked out of bounds. If it goes out over the sidelines, it is placed on the line and kicked into the field of play by an opponent of the player last touching it.

If it goes out of bounds over the end line and was last touched by a member of the defending team, it is put in play by a *place kick* by an attacking player from a spot on the goal line 5 yards from the nearest corner. This is called a corner kick.

When the ball is sent over the crossbar or over the goal line outside the goal post, by a player of an attacking team, it shall be kicked in by a place kick by any player of the defending team from anywhere on the quarter circles marking the penalty area. This is called a defense-kick.

If two opponents simultaneously cause the ball to go out of bounds, it is put in play by a *roll-in*. A roll-in is taken five yards in from the side line or goal line directly opposite the point where the ball left the field. An official rolls the ball between the two players who kicked the ball out of bounds. The two stand 5 yards in from the lines, facing each other ready to kick the ball. All other players must be at least 5 yards from the ball.

In order to prevent massing in front of the goal, an offensive player must have two defensive players closer to the goal than himself when a teammate passes him the ball. He cannot be "offside" if he is behind the ball.

BASIC SKILLS

Since soccer is the most popular team game in other countries, chances are that if you throw a ball at a boy who comes from any one of 70 countries, he will instinctively *trap** it with his body or stop it with his leg or foot. Here a boy would try to catch it with his hands. Soccer is therefore a completely different game for Americans. We are used to catching, striking, and throwing balls. Learning to control a ball without using hands or arms is a challenge. Most important skills for the game are ball control, speed, endurance, competitive spirit, and team play.

Kicking

Constant practice is necessary to develop a proper kick. Good soccer is played with the ball close to the ground. In learning to kick the ball, start with a stationary ball and progress to a moving ball and then to one moving and spinning.

Instep Kick. Place the non-kicking foot beside and about six inches from the ball. Keep the toe of your kicking foot down so you contact the ball with the instep, or shoe laces (Fig. 2A). Get your power from the knee by snapping the bent leg forward. Follow through with your foot close to the ground. This will tend to keep the ball down. Learn to kick with either foot. Having to shift your stride to favor your best foot may result in losing the ball.

Side of Foot. Kicking with the inside of the foot makes it easier to control the direction of the ball and is effective in passing sideways or diagonally. Kicking with the outside of the foot will send the ball on the opposite diagonal. Though these two types of kicks are not distance gainers, they enable you to control and direct the ball.

*In girls game, *trapping* the ball is stopping and controlling the ball with the legs or feet. If the ball is played off any other part of the body the term used is *blocking* the ball.

THE CHEST TRAP



A. SHOWS HOW THE BODY GIVES

THE CHEST BLOCK



D. PROPER FORM FOR GIRLS

Fig. 3. The Chest Trap: A shows how the body gives; B, proper form for girls

sides for balance. The weight is on the ball of the supporting foot.

Passing. Passing may be done with the toes or with the heels, but it is more often accomplished with the sides of the foot. Try to conceal where you are passing the ball until the last instant. Be sure to pass to a spot ahead of your teammate so that he won't have to slow down to receive it.

Trapping

Trapping is the art of stopping and controlling a moving ball. This is an essential skill of the game because if you can't *stop* and *keep* the ball close to you, you certainly can't pass or kick it.

There are several ways to trap a ball, depending on how the ball comes at you. You can stop it with the chest, stomach, legs, shins or feet. All of these ways require a lot of practice because no other game you have ever played has required this particular skill.

To practice the chest or stomach trap, have someone throw the ball at this part of your body—easy at first! The trick is to pull away from the ball at the right moment and speed to prevent the ball from rebounding. When a body trap is done right, the ball will fall at your feet. Use your arms for balance as you suck in your stomach or pull away with your chest. Figure 3A shows

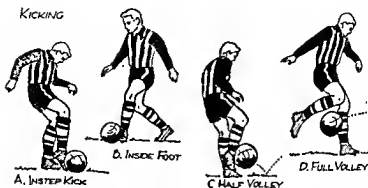


Fig. 2 Kicking. A, in step kick; B, inside foot; C, half volley; D, full volley

Heel Kick. Kicking with the heel is used for passing backwards. It is good only for short distances.

Volleying. Once you have a certain amount of power and accuracy in kicking a stationary ball and a moving ground ball, practice kicking the ball just as it rises from the ground (half volley) and also in the air (full volley) (Fig. 2C and D). The important things to remember on the half volley is to be over the ball, to keep your eye on the ball, and to kick at it with a short follow through. To become efficient with a full volley, keep your eye on the ball, meet the ball with a lot of surface of the instep, and don't kick too hard.

Punting. A punt is a kick that may be used only by the goal-keeper, since the ball must be caught and dropped to be kicked. The ball is held in both hands at arms length at about waist level, in front of the body. One or two steps may be taken preliminary to kicking. The kicking leg swings forward and upward with the knee bent and the toe pointing forward, so that the ball is kicked on the instep. The bent knee and straight ankle position will cause the ball to travel diagonally forward and upward. The ball is dropped just before the kicking leg starts the forward swing. The follow through is upward and forward, with the body bent forward and the arms out to the

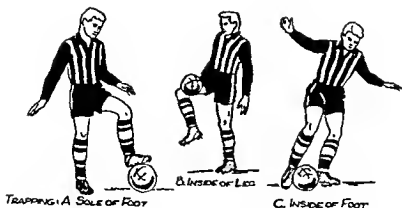


Fig. 4. Trapping: A, with the sole of the foot; B, with leg; C, with the inside of the foot

brought back to the ground and under control with the head. The ball should be contacted at the thickest part of the skull directly over the eyes (Fig. 5A). Always head the ball down to teammates or into the goal. To head the ball up means that the ball is out of control.

Tackling

Tackling is the art of taking the ball from an opponent by using the feet. First you must not make the mistake of rushing in too fast and off balance. You should judge the time of your tackle so that the ball will have just left the dribbler's foot when you move. The best tackle is made with the inside of one foot placed against the ball (not kicked). Crouch forward with the inside of your foot placed low against the ball (Fig. 5B). This will result in the dribbler's continuing along without the ball. Never leave your feet in making a tackle because it is dangerous to both you and your opponent.

Although ball control is the most important skill of soccer, speed, endurance, and competitive spirit count for much. It is a distinct advantage to be faster than your opponent. But if speed is not one of your assets, you can compensate by developing the endurance to play in top form for an entire game. Competitive spirit is another thing that cannot be ignored. Many teams

how the body gives so that the ball drops directly in front of you. Girls do the chest trap with the arms crossed (Fig. 3B).

The leg trap is used when the ball approaches just off the ground. To take the speed from the ball, merely raise one leg with the knee bent and give with the speed of the ball as it contacts the inside of the foot, ankle, or lower leg. When properly done, the ball will drop directly in front of you (see Fig 4B).

For the foot trap, raise the leg and foot over the ball the instant it hits the ground and form a wedge by dropping the heel and raising the toe. Just as the ball rebounds it should be smothered by the wedge formed by the bottom of the foot. The trick is to place your foot over the ball at the exact moment of rebound (Fig. 4A).

You may trap with the front of the leg by holding the feet close together and balancing the weight on the balls of the feet. Bend your knees and incline your body forward. You should bend the knees enough to trap the ball between the shins and the ground. The knee-bend should not be so great that you lose your balance. You should be able to rise instantly and dribble or pass the ball.

Dribbling

Dribbling is a way to advance the ball until an opponent forces you to pass. It is an important phase of the game and often makes it possible to score. To dribble, you move the ball along with the sides of your feet, with deft movements of the ankles, always keeping it close to you. Never dribble with the toes because the ball will get too far ahead. Practice dribbling in and out between objects placed five yards apart. Use both the inside and outside of both feet to dribble. It takes experience to dribble well and at the same time watch an approaching player. Learn to dribble at two speeds so that your change of pace will fool the opponent trying to tackle you.

Heading

Many times during the game a ball approaches a player head high. Often goals are scored with the head, and many balls are

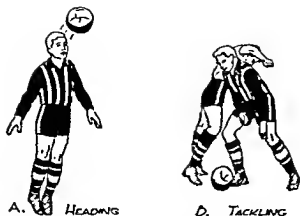


Fig. 5. Heading and Tackling

the forward line. Observe the style of play used by your opponent and apply that to your tackling.

2. Become an expert in the art of tackling. Stay with your opponent until you get the ball or force him to pass it. Keep between your opponent and goal line.

Tips for Fullbacks

1. Remember that defensive work is your primary job. Become efficient in long accurate kicks and be sure you know just how and where the kicks should be placed.
2. Learn to kick with both feet accurately in order to avoid an opponent.
3. Practice tackling so that you can upset an attack.

Tips for Goalkeepers

1. Don't be afraid of onrushing players or the ball.
2. Be alert and ready to make a quick judgment.
3. Study the style of play of your opponents.
4. Never use your feet in saving a goal when it is possible to use your hands. Develop skill in catching high balls and in punting and throwing.
5. Stand about two feet out from the line of the goal so that you have space in which to throw the ball out.
6. Learn to cut down on the angle of the opponents' shot so that less of the goal is visible.

with more skill have lost to a team that had nothing more than an intense desire to win. The history of sports is filled with upsets resulting from underdogs who refused to accept defeat.

TEAM PLAY AND STRATEGY

Every player on a team has 45 or 50 opportunities during a game to make his own decision as to what he will do with the ball. Team work and team strategy are among the most important factors in winning.

Ball control is essential to strategy. With the help of your physical education teacher, strategic plays can be worked out for kick-offs, free kicks, kick-ins, and others to give you an advantage. In the same way there are a number of defensive plays which can be worked out and practiced.

The common fault with most beginning players is not playing their positions. Forwards have an area which extends from their opponent's goal line to a point between the center line and their own goal line. The halfbacks go all the way back to their own goal line and toward the opponents' goal to a point halfway between the center line and the end line. Cover up for the player beside you, but do not play his position unless he is out of position.

Tips for Forwards

1. Become a skilled dribbler, a fast runner, and a good dodger. The short pass and dribbling type of game full of little tricks will wear down and tire out the opposing team.
2. Develop speed and endurance.
3. Be aggressive.
4. Play ahead of your halfbacks. Center the ball as you near the goal.
5. Improve your ability to pass and shoot while moving at full speed.

Tips for Halfbacks

1. Develop endurance. Keep trying if your tackle is unsuccessful. Back up your forward line, but don't try to play on

COURTESY AND SPORTSMANSHIP

To be courteous and show sportsmanship does not mean that you cannot be an aggressive player. Play your game and save your breath. Sportsmanship is more than observing the rules or giving 15 "rahs" for your opponents. Your behavior is the reflection of your respect for the other fellow. Your true self shows in the things you do that are not in the rules book but are in the spirit of the rules. For instance:

1. Raise your hand over your head when you know you were the last person who touched the ball before it went out of bounds.
2. Raise your hand over your head if you touch the ball with your hand or arm.
3. If you knock your opponent down accidentally, help him to get up.
4. Play for fun, but play to win.
5. Play your best. It is not fair to your teammates or your opponents if you play half-heartedly.
6. Keep your temper.
7. Don't blame others for your own poor playing.
8. Don't be critical or fussy about the mistakes of others.
9. Don't alibi or boast. Be a good winner and a good loser.

SAFETY

You can protect yourself from injury in soccer by keeping physically fit, by developing proper skills, and by using body protectors. Soccer is a vigorous game for which the body should be conditioned gradually. Warm up completely every day before you practice or play a game. Take care of early season blisters and muscle pulls. Kicking too hard at the beginning of the season often results in serious strains in the groin.

You can protect yourself from injury by using shin guards and glasses guards—the latter a "must" for the player who has to play with glasses. Shin guards are worn inside knee-length socks.

Shoes are the most important part of the player's equipment. Regulation shoes are high, leather shoes, cleated with leather or rubber to protect the player against slipping.

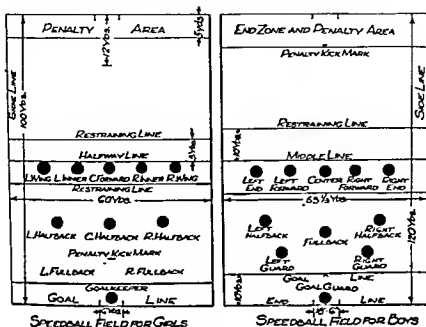


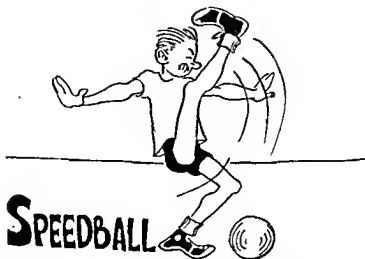
Fig. 1. The Playing Field: A, girls; B, boys

on Women's Athletics, now the Division for Girls and Women's Sports, from 1930 on has been working to make speedball one of the best sports for girls.

THE GAME

As was indicated above, speedball is a combination kicking and passing game. The object of the game is to advance the ball up the field and score. At times the rules permit the ball to be advanced by kicking only; at other times by passing only. An important part of the strategy of play is to get a ground ball into the air and an aerial ball onto the ground when your opponents least expect it.

While the game of speedball for girls and that for boys are similar, boys play on a slightly larger field. The length of the playing field for the girls game is the same as that of a football field (100 yards). For the boys game the end zones are added to make an area 120 yards long. The markings for the fields and the players' positions are shown in Figure 1.



Speedball, like baseball and basketball, is a game of American origin. The most recent of the three, it was invented in 1921 by Elmer D. Mitchell at the University of Michigan.

It is said that speedball got its name when an excited player yelled, "Let's speed the ball!" Anyway, the name is certainly most appropriate, for fast footwork, handwork, and headwork are essential requirements for playing the game well.

And no wonder! Speedball is an ingenious combination of soccer and basketball. When the ball becomes a ground ball, it is played with the feet and body as in soccer; when it goes into the air, it is played with the hands as in basketball. The result of this combination is a game that is fast moving and that provides plenty of opportunity for scoring.

From the University of Michigan it has spread all over the United States. Colleges and high schools have adopted it for their fall intramural program, for it is a good game for tangy autumn days. During World War II it was played in Army and Navy training camps as a conditioning sport, because it provides good all-around exercise.

Girls started playing speedball three years after it was invented. As many variations in the game developed, the National Section

an aerial ball. An aerial ball may be advanced according to basketball rules with one exception. The basketball dribble may not be used because when the ball touches the ground it becomes a ground ball, and the hands cannot be used to recover it. As a substitute the juggle (overhead dribble), seldom used in basketball, is often used in speedball.

The defensive team tries to prevent scoring by their opponents and attempts to gain possession of the ball. In doing so the defensive techniques of soccer are used against ground balls and the guarding techniques of basketball are used on aerial balls.

Scores can be made in the following ways: by a field goal, a touchdown, a drop kick, a penalty kick, or an end goal (this last is not in the girls game). You kick the ball between the goal posts and under the crossbar for a field goal. This is similar to the field goal in soccer. You pass the ball over the goal line to a teammate for a touchdown just like the forward pass for a touchdown in football. Or you can drop-kick the ball over the crossbar as in football. The fourth method of scoring is the penalty kick. This is awarded as a penalty for certain fouls, and is comparable to the free throw in basketball. However, it is a kick instead of a throw. In the boys game it is a place kick which must pass *through* the goal to count as in soccer. In the girls game it is an unguarded drop kick which must go *over* the crossbar to score. In the boys game an end goal can be scored when in the end zone a ground ball is kicked over the end line but not between the goal posts. It doesn't make any difference whether the ball is kicked over the end line by an offensive or defensive player; it counts as a score for the offensive team. Touchdown passes must be thrown outside the goal posts. After a score, the ball is put in play by a kick-off by the team which did not make the score.

Speedball is played in four quarters, ten minutes in length for boys and eight minutes for girls with a two-minute break between quarters and a 10-minute half-time intermission. If the score of a game is tied at the end of the regulation playing period, a five-minute overtime period is played by boys. In the girls game the tie score stands.

Differences in the markings on the two fields are:

	<i>Boys Field</i>	<i>Girls Field</i>
1. Goal posts	On back line of end zone	On zero yard or goal line
2. Restraining line	10 yards from middle line	5 yards from half-way line
3. Penalty area	10 yard end zone	5 yards area in front of goal line
4. Penalty-kick mark	10 yards in front of goal posts	12 yards in front of goal post

The eleven players on the boys team are five forwards; left end, left forward, center, right forward and right end; two halfbacks; right and left; one fullback; and three guards; right, left, and goal guard.

On a girls team the five forwards are left wing, left inner, center forward, right inner, and right wing. Then there are three halfbacks: left, center, and right. Right and left fullbacks and a goalkeeper complete the team.

Play starts with a kick-off. The toss of coin determines which team shall kick-off. The ball (a regulation soccer ball) is kicked by the center from a point on the middle or halfway line. Members of the defensive team must remain behind the restraining line and members of the kicking team may not cross the middle line until the ball has been kicked.

The player making the kick-off may kick the ball far down the field, but he is more likely to lift it diagonally forward so that a teammate can run forward to catch it and make the next pass. The players then try to advance the ball toward the opponent's goal by dribbling, kicking, and heading ground balls and throwing aerial balls.

A ball that has touched the ground is a *ground* ball and must be played according to soccer rules (that is, the hands may not be used) until such time as it is raised into the air by a kick. A ball may be caught directly from a kick, at which time it becomes

end zone or between the goal posts. The kicker must make an actual attempt at goal, and he *cannot* play the ball again until after another player plays it. If a penalty kick with no follow-up is missed, the ball is put in play by the defensive team from the end line.

There are other infractions of the rules besides personal and technical fouls. These additional infractions are called *violations*. The various violations are as follows: traveling with the ball, touching a ground ball with the hands or arms, double overhead dribble (juggle), offside on the kick-off, short kick-off, kicking or kneeling a fly ball before catching it, violating free-kick rules, violating out-of-bounds rule by offensive player, violating penalty-kick rules, and violating the tie-ball rule.

A violation outside of a team's own penalty area gives the ball to the opponents out of bounds at the point nearest the infraction. A team may not score directly from a throw-in. If the violation occurs in a team's own end zone or penalty area, the opponents are awarded a penalty kick with a follow-up.

Fouls and Penalties—Girls Game

Fouls are the *individual type*, such as pushing, tripping, charging, handling a ground ball, and holding the ball more than 3 seconds; and the *team type*, such as having more than eleven players on a team. Penalties vary, depending on the foul and where it occurs.

The penalty for a foul is generally a free kick taken at the point where the foul occurred by a member of the team which did not commit the foul. The player taking the free kick puts it in play by a place kick, and all opponents must be at least five yards away. If the defense commits a foul inside its own penalty area or behind its goal line, the offense is given a penalty kick—an opportunity to drop-kick a goal from the penalty-kick mark.

Scoring

Differences in scoring in boys speedball and girls speedball are shown in the following chart.

At the beginning of each quarter the play is started by a kick-off, the teams alternating in taking the kick-offs. For an overtime period for boys the ball is put in play by a jump ball.

If a team causes the ball to go out of bounds over the side line, a throw-in is given to the opposing team. Should the ball go over the end line without a score being made, the ball is given to the opposing team to put in play by either a pass or a kick. In general, on this play from the end line, the ball must be kicked or thrown into the field of play beyond the penalty area before a score can be made.

A major difference between the girls speedball game and the boys game is in the fouls and their penalties. For this reason they will be treated separately.

Fouls and Penalties—Boys Game

There are two types of fouls—*personal* and *technical*. Personal fouls include the following: kicking, tripping, charging, pushing, holding, or blocking. Unnecessary roughness of any kind, such as running into an opponent from behind or kicking at a fly ball and thereby kicking an opponent, is a personal foul. A player with four personal fouls is disqualified.

Technical fouls are as follows: illegal substitution, more than three time-outs in a game, unsportsmanlike conduct, too many players on the field, and unnecessary delay of the game.

The penalty for personal and technical fouls is one or more penalty kicks from the penalty mark. For a technical foul or a personal foul in the field of play the offended player is given one penalty kick with no follow-up (the ball is dead). For a technical foul in the end zone, one penalty kick with a follow-up is awarded (the ball is in play if goal is missed). For a personal foul in the end zone two penalty kicks with a follow-up on the second is given to the offended player.

Remember that fouls that occur in the field of play allow no follow up; fouls in the defensive end zone permit at least one follow-up. On penalty kicks with a follow-up, the kicking team is behind the ball and the defending team must be either behind the end line or in the field of play. No one is allowed in the

FUNDAMENTAL SKILLS

The fundamental skills in speedball are kicking, throwing, and catching. There is, however, ample opportunity to use other common sports skills, such as running, dodging, jumping, pivoting, heading, trapping, volleying, and guarding. Most of these skills are common to other games—especially soccer and basketball—but several deserve special comment in connection with speedball. A few are special speedball skills:

1. *Kicking*

Kicking skill includes: a) place-kicking; b) punting; c) drop-kicking; d) dribbling; e) kick-ups; and f) stubbing.

The first four types of kicking are common to football and soccer, and the correct ways of executing them are explained in the chapters on those sports.

The *kick-up*, however, is a skill definitely linked with speedball. It involves an art in which the player kicks the ball so that he may catch it himself with the purpose of starting a passing offense.

The *one-foot kick-up* (Fig. 2A) is used on a rolling ball coming toward you. Let the ball hit the toe of your foot and thereby flip the ball into the air so you can catch it. The ball must be free from the foot before it may be touched with the hands. This play may also be executed by having the ball touch your extended foot and then roll up your instep, ankle, and shin before being impelled into your hands.

There is a tricky variation of the one-foot kick-up. This is used on a stationary ball, usually on one that you have trapped. Your foot is on top of the ball. Give your foot a quick move toward you. This will spin the ball so that your toe goes under it, and you can then flip the ball into the air and into your hands (Fig. 2B, C, D).

The *two-foot kick-up* is used when you have the ball trapped between your two feet. Jump into the air extending the knees forward. By a flipping action of the feet the ball will be flipped into the air for a catch (Fig. 3).

The principle of the kick-up may also be employed to make a short upward kick to a teammate nearby so that an aerial offense

Method of Scoring	Points Scored	Play Starts From	Kind of Play	Successful When
<i>Field Goal</i>				
Boys Game	3	any place in field of play (not in end zone)	kick	ball goes between goal posts under crossbar
Girls Game	2	any place in field of play	kick	ball goes between goal posts under crossbar
<i>Touchdown</i>				
Boys Game	2	any place in field of play (not in end zone)	pass	ball caught by teammate in end zone
Girls Game	2	any place in field of play except penalty-area	pass	ball caught by teammate behind goal line with the exception of part between goal posts
<i>Drop Kick</i>				
Boys Game	1	any place in field of play (not in end zone)	drop kick	ball goes between goal posts over crossbar
Girls Game	3	any place in field of play except penalty area	drop kick	ball goes between goal posts and over crossbar
<i>Penalty Kick</i>				
Boys Game	1	from penalty kick mark	place kick	ball goes between goal posts and under crossbar
Girls Game	1	from penalty kick mark	drop kick	ball goes between goal posts and over crossbar
<i>End Goal</i>				
Boys Game	1	from end zone	kicked or played legally off the body	ball passes over end line

Scoring in Boys Speedball and Girls Speedball

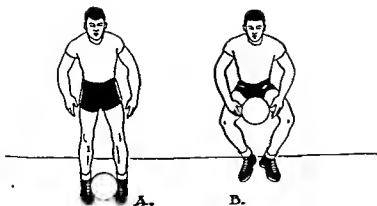


Fig. 3. The Two-Foot Kick-Up

Pivoting

This skill is familiar if you have played basketball. You need it when you are confronted with an opponent. Since traveling with the ball is not permitted, you cannot elude your opponent by dodging; you must either pass the ball ahead to a teammate, make an overhead dribble, or pivot with the ball. By pivoting to either side you can turn your back to the opponent and keep the ball out of his reach while finding someone to pass to.

Heading

Most American players, unless they have played soccer, are unfamiliar with this particular skill. It consists in propelling a ball that is in the air by means of bouncing it off your head in a desired direction. In heading a ball, jump into the air with your neck rigid and your head slanted in the direction you wish the ball to go and play the ball off the thickest part of your skull, directly over the eyes.

Trapping

This is another skill common to soccer. It consists of blocking a moving ball with the foot or body* so that its impetus is stopped and it can be controlled by the feet of the player who has trapped it. Sometimes you simply place your foot on top of a ball that is

*In girls game blocking is playing the ball off the body.

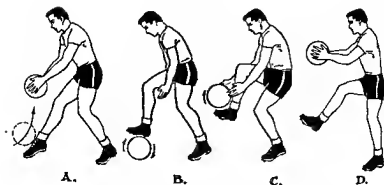


Fig 2. The One-Foot Kick Up with a rolling ball (A), with a stationary ball (B, C, D)

may be started. This is a variation of the kick-up and is called *stutting*.

The Overhead Dribble

The overhead dribble (juggle) is a special feature of speed-ball. You use it to get around an opponent. To execute it, you toss a looping gentle throw over his head and then run around him to recover the ball. You can also use it when you wish to gain ground without taking "steps" (traveling) and thereby incurring a violation.

Running

You must always remember that you cannot run when you have the ball in your possession. You must learn to come to a stop quickly in order not to incur a violation for traveling with the ball. The use of the overhead dribble will help you in this situation.

Jumping

This skill is employed in jumping into the air to catch or tip "fly" balls, in making throw-ins from out of bounds, in connection with toss-ups after held balls, and in combination with the skill of heading the ball.

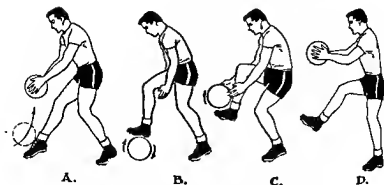


Fig. 2. The One-Foot Kick-Up, with a rolling ball (A), with a stationary ball (B, C, D)

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a team of tall players, expert at passing, will try to convert all ground balls into aerial play as soon as possible.

If your team is a fast, high-scoring team, concentrate on offense; if a slower, less experienced team, concentrate on defense to keep the opponents' scoring opportunities down.

Play your position on the field instead of running all over the field after the ball. When the offensive players are bunched, then there is no one free to play to in the open when the ball is secured. This tendency of players to chase the ball rather than to play in their own area on the field is one of the greatest faults of uncoached players.

A kicking offense is most likely to be successful if the ball is advanced up the sideline of the field, and then, when the defense has been drawn out to cover, the ball is centered.

A passing offense has an advantage if ball is advanced up the center of field as there is a better opportunity for scoring by a field goal or drop kick. Also there is the additional option of completing a forward pass in any part of the end zone that might be uncovered, except between goal posts in girls game.

If a strong wind prevails, it is good strategy to select the goal with the wind. The punt is a good offensive weapon on windy days with the wind in your favor, because it gets the ball far down the field. Against the wind, long high passes or punts should be avoided. It is better to stick to ground kicks and low aerial passes.

The drop kick comes in handy when a player is alone with the ball in front of the goal and has no one to pass to.

It is a good plan to have a trailer for the man advancing the ball up the field. Then, if he is blocked ahead, he knows that he can always pivot and pass back to the trailer if in aerial play, or kick the ball backward if in ground play. In scoring tactics it is also advisable to hurry a man ahead of the play and have him in the end zone as soon as possible for a potential pass receiver.

Defensive Play

Three styles of defense are common, the *man-to-man*, the *zone*, and the *combination*. The zone or position style is generally favored as it cuts down on the amount of running, and there is

rolling on the ground toward you. Sometimes you use both feet, with one foot at an angle stopping the ball and the other foot then being clamped against it (see p. 199, Fig. 4C). Trapping is described more fully in the chapter on soccer, which you should turn to if you have not yet read it.

Volleying

This is another soccer skill. It is based on the same principle as heading. You use it to advance ground balls by letting them bounce off your body or by giving them added force by hipping, shouldering, or kneeling. Girls may volley with arms folded against chest. You can also use it to deflect aerial balls to the ground when you want to play a kicking game. This is an important skill, because ground balls may not be touched by the hands or arms.

Guarding and Checking (Marking)

You need variety in using these skills because the basketball-type of guarding is employed on aerial play, and the difficult checking (marking) tactics are employed in defending against the kicking game of the offense. The important thing is that when you are the defender, play the ball and not your opponent. Also you cannot impede the progress of an opponent who does not have the ball; you can, however, stand still and force your opponent to run around you.

TEAM STRATEGY

Because of the nature of the game much of the play is impromptu. There are few "set" situations where rehearsed plays can be put into operation as is the case in football or basketball. Certain planned plays can be executed from the kick-off or from out of bounds, but usually the plays depend upon the ingenuity of the players themselves in sizing up the situation and in making the best response to it.

Offensive Play

In general a team that is adept at kicking will emphasize the kicking game and will tip all fly balls to the ground. Conversely,

The Backs

The second-line players (halfback and fullback in the boys game) have double duty in that they have considerable responsibilities both on offense and defense. They must therefore be more than skillful and versatile players—they must have stamina as well. Most of the throw-ins of the ball from out-of-bounds in their own half of the field are made by the backs. They are in the best position for this play. As a rule, one of the halfbacks should pass the ball in from the side-line out of bounds. This gives the forwards—the best scorers—a chance to take positions in scoring territory.

Because of their intermediate position on the field, the backs should have the intuition to size up the opponents' plays quickly and break these up if possible before they get too far underway.

The Guards

The third-line players (fullbacks in the girls game) are mainly defensive players. They should be good at making long kicks, punts, and passes in order to get the ball out of danger quickly.

The guards are in the best position to put the ball in play when the offense sends the ball out of bounds over the end line.

When starting offensive play, one of the guards should move up the center of the field and act as a trailer to the man who has the ball. The other guard should then fill in behind so that the three guards are somewhat in tandem formation. Under this plan, the guards may occasionally interchange sides of the field.

The goal guard in speedball has no advantages peculiar to his position. He can, therefore, interchange at will with any other player who needs a rest. This makes him an all-round player instead of a highly specialized player. It is an advantage to the goal guard to have a long reach. He must be quick-witted. He must decide quickly to leave the goal—sometimes a dangerous procedure—when he is sure he can beat an opponent to the ball. As a rule he plays his position correctly when he stands a few yards in front of the goal. By so doing, he cuts down the scoring angle—leaves less space to each side and above him through which a ball may score. In getting the ball out of danger he should be coached to clear the ball to one side instead of straight up the field.

also someone in each area of the field to pass to when your team recovers the ball. However, if your opponents' attack is centered around a few star players, you should use the combination style. In it, the opposing star players are covered man-to-man, but the other defensive players cover a specified area of the field. The threat of the opponents' attack is thereby checked doubly; for, if an opponent who is covered man-to-man should break loose, he is almost certain to run into a second defender—the one who is playing position in the area invaded by the play.

In the man-to-man defense it is essential that the defender keep between his opponent and the threatened goal. This style of play is liable to be rougher than the position style and also causes more bunching of the players.

In the zone defense it is always important to follow the shifting principle. For example, if the ball is in play on the left side of the field, then the defending players on the right-hand side of the field drop back toward their goal and also toward the center. By this method, the center defenders can move out in the direction of the play, knowing that the areas they are leaving will be protected; also, it insures that the play does not get in behind the defense. If the ball should travel from the left to the right of the field, then the strategy is reversed. The right hand defenders move up the field and toward the sideline to meet the attack, and the left hand defenders fill in behind them. In this way, too, the offensive play is always being forced out to the edge, where there is much less chance of scoring.

The Front-line Players

These players should be fast and active because they are the main scoring players. If possible, the ends should be tall, because they will have more chances to catch forward passes. The forwards and center should be especially adept at kicking field goals and making drop kicks. Also, they will have more chances to make penalty kicks and should give special practice to this shooting skill. On penalty kicks it is important to disguise the intent of the direction of the kick. Then the best chance of success is to direct the kick to one side of the goal, after having feinted the goal guard off balance toward the other side.

Dribble is a series of little kicks by one player whereby the ball is moved forward along the ground.

Drop kick is a play in which an aerial ball is dropped and kicked as it rebounds from the ground.

Free kick is a place kick awarded for certain fouls.

Ground ball, as the name implies, is one rolling or bouncing on the ground, even though it may be in the air temporarily. It is played with the feet.

Heading is directing a ground ball, which is temporarily in the air, with a bounce off the head.

Kick-up is a play by which a player causes a ground ball to become an aerial ball.

Penalty kick is a play on the penalty-kick mark awarded the attack when the defense fouls in its own penalty area and under some other circumstances.

Place kick is a stationary kick, such as the one used to start the game at the kick-off or a free kick. Ball may be lifted into the air or kept on the ground.

Punt is a kick of a dropped ball before it touches the ground.

Trapping is stopping and controlling the ball with the feet or body.

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SAFETY PRECAUTIONS

Since speedball is played on a large field, there is plenty of room for you to move about and few personal fouls need to occur. It is a relatively safe game, but here are a few pointers which will help make the game a safer one to play.

1. Keep the field smooth and free from rubble.
2. Wear suitable clothing. Shin guards are recommended and eye glass guards if you need them.
3. Play your position. Avoid bunching and wild kicking.
4. Turn your side toward swift oncoming balls and play them off your shoulder or hip.
5. Girls, fold your arms across your chest when volleying balls or facing them for high play.
6. Direct your kicks. Don't just barge in and slam the ball.
7. *Think* as you play.

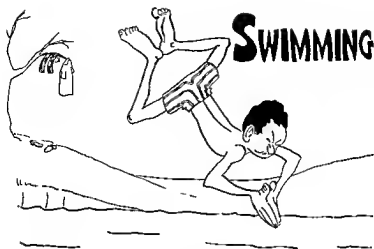
SELECTION AND CARE OF EQUIPMENT

There is one grand thing about speedball: you don't need much equipment. A soccer ball, shin guards for each player, and a regulation gymnasium uniform—or in cold weather a sweater and slacks—and you're ready for the kick-off. However, a few hints in this regard:

1. Select good leather balls and keep them properly inflated according to the manufacturers' specifications.
2. Dry them carefully and away from the heat after play on a wet field. Grease them if they get too dry.
3. Shin and goal keeper's guards are a necessity. They should be light in weight, well fastened, and *USED*.
4. Rubber-shafted flags should be used to mark the corners.

SOME SPEEDBALL TERMS

Aerial ball is one raised in the air by a direct kick from one or both feet, and includes the punt, drop-kick, and kick-up. It is also one which is thrown and has not yet contacted the ground. It is played with the hands.



"Swim for fun, swim for health, and swim for safety" is a frequently quoted phrase. If you can swim you can enter into many exciting activities. Synchronized swimming, springboard diving, racing, life saving and many other aquatic activities are enjoyed by thousands of teenagers.

You can't think of a better sport to save your life! This is more than just a play upon words, for it expresses a thought worth taking seriously. You may save your life by knowing how to swim, and you can save your life daily by keeping physically fit.

TIPS ON DIPS.

Before going into the water it would be well for you to consider carefully some common sense procedures around a swimming area. These safety and health measures will not interfere with your fun—they will actually help you to get more enjoyment from the water.

1. Select a safe place, preferably one attended by life guards
2. Until you learn to swim, stay in shallow water.
3. Always go swimming with a buddy, never alone.
4. Be smart. Don't try to show off. Distances over water are often greater than they seem.

5. Make sure the water is deep enough and has no hidden rocks before you dive in.
6. Enter the water gradually, especially if it is cold. Wait one and one-half hours after eating a meal before going swimming.
7. If you get into trouble, keep calm. Don't reach for the sky. Keep your hands under water and kick your feet.
8. Take your sun gradually.
9. Observe all sanitary measures when swimming. Anyone with a skin disease, open sore, a fever, a cold, a cough, or wearing bandages should not swim.
10. Observe the following personal precautions: wear nose clips for water stunts; breathe properly when diving or jumping into the water to avoid sinus and ear infections.
11. Get out of the water and rest as soon as you feel tired or cold.
12. Remember, a wooden boat or canoe, or metal ones with good air tanks, will float even when filled with water. Stick to your boat if it upsets, and use it as a life preserver.
13. **MOST IMPORTANT OF ALL—LEARN TO SWIM.**

When some people enter the water for the first time, feelings of tightness and breathlessness result. This condition is called tenseness. To swim easily and effectively you must be natural in the water. Some swimmers use the word "loose" to describe the proper feeling of muscles.

First, go into waist deep water. Move slowly up and down. Put some water in your hands and "wash" your face. Hold your breath and put your face under water. Open your eyes under water. Play games such as tag, keep-away, and simple relay races. Running in waist deep water will help you to relax and feel at home. Let your arms help pull you through the water and use your feet and toes to push off the bottom. *Learn to feel at home in the water.*

There are many skills you could learn if you want to enjoy maximum benefits from the water. However, if you learn the "Big Five," you will be well on your way to becoming "at home" in the water. The Big Five are: (1) Breath Control, (2) Staying

Afloat With a Minimum of Effort, (3) Distance Swimming, (4) Special Swimming, (5) Entering the Water.

BREATH CONTROL

The secret of successful swimming is relaxation. One of the factors involved in relaxation is breath control. To be able to get a sufficient amount of air at regular intervals as well as to close the air passage so that no water enters the nose and mouth is to find the key to successful swimming.

How You Learn It:

There are three skills involved in Breath Control: mouth breathing, breath holding, and rhythmic breathing.

You can begin the learning process at home. Next time you take a shower bath allow the water to run over your face. Keep your mouth closed and exhale through your nose. Try the same thing but this time exhale through both your nose and mouth. After you can do this easily add rhythmic breathing. Move your face from the direct flow of the water and inhale through your mouth; then without hesitating put your face back under the water and exhale through your nose and mouth. Continue to do this until you develop a definite rhythm.

Now for the water. Stand in chest deep water, take a breath through your mouth, bend forward and put your face in the water and hold your breath. Practice this until you can keep your face under water at least 10 seconds. Now try exhaling below the surface through both nose and mouth. Next practice rhythmic breathing: inhale above the surface, exhale below the surface. Practice until you can do this continuously for at least one minute.

Things to Remember

1) Always inhale through your mouth; 2) Exhale through both your nose and mouth; 3) Try to keep your eyes open under water; 4) Pressure of water on chest makes it necessary to make a very definite effort to inhale. Take a swimmer's breath, that is a short, quick, and deep gulp of air.

STAYING AFLOAT WITH A MINIMUM OF EFFORT

This skill is primarily a personal safety skill. Many times in an emergency it is more important to remain at approximately the same position on the surface rather than to swim far or fast. The mastery of this skill could very easily mean the difference between life and death.

There are five skills involved in remaining afloat with a minimum of effort—*floating, sculling, human stroke, treading water, and bobbing.*

Floating: How You Learn It

Test your natural buoyancy by taking a deep breath and lying face down in the water while allowing your legs and arms to hang suspended toward the bottom. If your back remains close to the surface, you have positive buoyancy and should be able to float.

An easy way to get into a face-up floating position is to stand in chin deep water with your arms extended, palms up, and close to the surface. Tilt your head back, take a breath, and slowly lean back until your feet leave the bottom. When your feet leave the bottom, your face may go below the surface. Don't worry about this. Hold your breath; you will eventually come to the surface. Try to breathe normally. *Don't* try to bring your feet to the surface—allow them to hang suspended. The important thing is to have your nose and mouth above the surface. To stand up from this floating position merely scoop your arms down and forward as if you were pulling a chair under you, and at the same time sit down on the imaginary chair.

Floating: Things to Remember

- 1) Keep as much of your head below the surface as possible;
- 2) Keep your arms under water; 3) Breathe normally; 4) Allow your legs to hang suspended.

Sculling: How You Learn It

If you can't float motionless, you can still stay afloat with a minimum of effort by assuming the floating position and mov-

ing your hands as if you were smoothing sand. Practice this while lying on a bed, the deck of a pool, or even the ground. Lie in a face-up position with your arms extended along the side of the body and your hands against the thighs. Move the hands away from the legs, with the thumb down, palm of hand turned away from the body. When the hands are about 12 to 18 inches away from the legs, turn the thumbs up and the palms toward the leg and return the hands to the original position. Continue to do this in a rhythmical pattern. After you have developed the pattern of movement try the same thing in the water. Lie on your back, chin up, ears in the water. Keep your hands underwater and allow your legs to trail. Ask your buddy to stand back of you and support you at the shoulders until you feel comfortable.

Sculling: Things to Remember

1) Keep your arms under water; 2) Move your hands as if you were smoothing sand; 3) Develop a rhythmical and uninterrupted pattern; 4) Keep your head back, ears in the water; 5) Keep your hands within 18 inches of the body at all times of movement.

Human Stroke: How You Learn It

Practice the leg stroke (flutter kick) by lying face down on a bed or bench and extending your legs from the hips down over the edge. Keep your legs straight but not stiff and slowly move your feet up and down so that the heel of one foot and the toe of the other foot are never more than 8 to 12 inches apart. Continue to do this until you develop a definite rhythm. Keep your foot extended while you kick.

Move into shallow water and practice the kick while supported by your buddy, edge of pool, or bottom of swimming area. Now lie in a face down position, and while unsupported practice the kick. When you can move at least three body-lengths, your kick is strong enough for this skill.

To practice the arm stroke stand in chest-deep water and submerge to shoulder level. Keep your arms under water and reach forward as if you were crawling. Alternate your arms—reaching one arm forward while the other arm presses back. Do the same thing, but this time walk through the water.

Lie in a prone position, your face in the water and move your arms. It is not necessary to move your feet at this time. Now lie in a prone position, face in water, and practice moving both arms and legs. Repeat, but keep the face above the surface.

Human Stroke: Things to Remember

1) Keep your arms under water; 2) Reach as far forward as possible; 3) Develop a rhythmical uninterrupted pattern of movement; 4) Keep your legs straight but not stiff; 5) Keep your feet under water at all times; 6) Keep your face as close to the water as possible; 7) Develop a breathing pattern.

Treading Water: How You Learn It

If you can do the human stroke you can tread water. Swim the human stroke and slowly allow your body to assume a vertical position by lifting your head and shortening the arm action. When in the vertical position (treading-water position) you can change the arm action to a sculling movement and the leg action to the vertical scissors kick (See Side Stroke Kick).

Treading Water: Things to Remember

1) Keep your arms under water; 2) Use either a sculling motion or human stroke motion; 3) Use either a flutter kick or scissors kick; 4) Breathe normally.

Bobbing: How You Learn It

This skill utilizes the position you were in when you tested yourself for positive buoyancy. Take a breath, lean forward, and place your face in the water, chin down on your chest, and allow your arms and legs to hang suspended. Hold this position for 5-10 seconds. Exhale toward the latter part of this period and for another breath of air come to the surface by pressing your hands down and snapping your feet together. After the breath allow your body to submerge. If your body submerges too far, press your hands down as you put your face in the water. Practice this skill until you are able to do it with ease and

comfort. Ninety-nine out of one hundred people will have enough buoyancy to remain at the surface in this manner.

Bobbing: Things to Remember

1) Keep your chin on your chest when the face is in the water; 2) Press the hands down and snap feet together to lift head for air; 3) Allow legs and arms to hang suspended; 4) Put face back in water immediately after taking breath; 5) Exhale just before lifting head.

DISTANCE SWIMMING

Not only will distance swimming prove to be a good body builder but it will also serve you in good stead in the event you are forced to swim a long distance in order to carry a message or save your life.

There are three strokes usually used in distance swimming: breast stroke, side stroke, and elementary back stroke. The elementary back stroke is probably the easiest to learn and the least tiring. The strokes have one thing in common—the arms always remain below the surface. Strokes in which the arms are lifted from the water are more tiring because of the added energy required.

Elementary Back Stroke: How To Learn It

You can start to learn the stroke at home. Lie face up on your bed and extend your legs from your knees down over the side of the bed. Start with your legs straight and feet together. Keep your feet together and slowly lower them by bending, at the same time separating the knees until the feet are directly below the knees. *Without stopping* the movement of the legs, turn the toes toward the knees and make a wide circle with the feet. Continue to circle until the feet return to their original position. This is called the inverted breast-stroke kick.

To practice the arms movement extend the arms along the sides of the body with the palms of the hands against the legs. Keep the first or middle fingers against the body and slowly raise the hands toward the armpits. Just before the hands reach the

armpits and *without* stopping extend the arms to the sides in line with the shoulders. Again, *without* stopping, and with the arms straight, press the hands to the starting position.

Practice the complete stroke while lying on the bed. Extend your legs over the side. Lower your heels and start moving your hands toward the armpits. This is when you inhale. Extend your arms to the side and start to circle with you feet—complete the leg circle while pressing the hands to the starting position. Exhale and rest for one or two counts before starting the next stroke.

Now for practice in the water. Ask your buddy to support you while you practice the leg movement. Lie on your back, ears in the water, hands at sides, legs straight, feet together. Be certain to keep your knees below the surface at all times. Your buddy can also support you while you practice the arm movement. Remember, your arms remain below the surface at all times. After you have practiced moving your arms and legs independently, you are ready to combine them. Call on your buddy once again for support until you get under way—one or two strokes should be enough to get you started. Hold the glide at the end of the stroke for at least two seconds.

Elementary Back Stroke: Things to Remember

1) Keep your hands, feet and knees below the surface at all times; 2) The hands should reach to the level of the shoulders or slightly beyond; 3) Rest for one or two seconds after each stroke; 4) Lie on your back with your ears in the water and look directly overhead; 5) Inhale as the hands move toward the armpits—exhale at all other times; 6) Turn toes up toward knees while feet are circling.

The coordinated movements are: Count 1—move hands toward armpits and drop heels; Count 2—extend hands to sides and start to circle with feet; Count 3—press hands to sides and complete circle with feet; Count 4—rest.

Breast Stroke: How You Learn It

The leg stroke is the same as the leg action in the elementary back stroke except that you are in a prone position. Ask your

buddy to support you and practice the kick. Start with your legs straight and feet together. Slowly move your heels toward your hips with the knees separated wider than the feet. When the heels are drawn up as far as comfortable, turn the toes up toward the knees and move your feet in a circular motion. Stop your feet for a momentary rest when they return to their starting position. Lie face down unsupported and practice this kick. Continue to practice until you can move at least three body lengths. This is known as the regular breast-stroke kick.

To practice the arm movement, stand in chest-deep water and bend forward so that the shoulders are below the surface. Start with the arms extended forward and hands together. Press your hands down and back with the palms leading until they are in line with your shoulders, then bend your elbows and bring your hands together in front of your chest, and finally slide them forward to the starting position. Now walk, doing the same thing. Now lie with your face in the water and practice the arm stroke. You should be able to move at least three body-lengths.

Combining the arms and legs is the next step. Start with the arms extended and feet together. Press the hands back and keep the feet together. As the hands start moving together start moving the feet so that as the hands complete the slide forward, the feet will come together. Keep your face in the water while you are learning the coordinated movements. When the coordination is set, lift your face from the water to breathe on the press of the arms and lower your face and exhale at all other times. Hold glide at end of stroke for at least two seconds.

Breast Stroke: Things to Remember

- 1) Keep your hands under water at all times; 2) Press your hands back to shoulder level; 3) Palms push on the water as hands are pressed back; 4) Rest with the hands together and feet together at the end of the stroke; 5) Bring heels toward hips by lifting heels rather than pulling knees up; 6) Turn toes toward knees while feet are circling; 7) Lift head and inhale as hands press back; lower head and exhale at all other times.

The coordinated movements are: Count 1—press hands back to level of shoulders—keep feet together; Count 2—move hands to chest and lift heels toward hips; Count 3—slide hands forward and circle the feet; Count 4—rest.

Side Stroke: How You Learn It

You can practice the leg movement while lying on a bed, bench, or the ground. Lie on one side. (Stroke on the right side is described. Reverse directions if you prefer your left side.) Support your head with your right hand, elbow on the ground. Start with your legs straight and feet together. Slowly draw your heels toward your hips. When they have been drawn up as far as comfortable and without stopping, extend the left leg forward and move the right leg back. As a continuation of the previous movement and without stopping, snap the legs together. Rest momentarily when the legs come together. Continue until you develop a pattern of movement. This is the regular *scissors kick*.

To practice the arm movements, stand so that you bend to the right from the waist. Raise your right arm until your head is resting on it, left arm resting along your left side. Keep your right arm straight and press it down until it is pointing towards the ground. Then bend your elbow as you lift your wrist towards your chin, dropping your elbow as you do so. At the same time move the left hand forward toward the chin by bending the left elbow until the hands meet in front of the chin. After the hands meet, slide the right hand forward and press the left hand back to the starting position.

It is even possible to practice the coordinated movement on land. Stand as you did to practice the arm stroke. As you start to move your arms, lift your left leg so that as the hands come together in front of the chin the left foot returns to its starting position. Next practice in shallow water. Using your buddy or the edge of the pool for support, practice the leg movement. Make the movements smooth. Be sure to stop your feet as they come together and rest in this position for at least two counts. When you feel comfortable doing this, try the same thing without

support. Lie on your side and move at least three body-lengths doing the scissors kick.

Practice the arm-movements by standing in shoulder-deep water. Move the arms as you did on the land except you now keep them under water at all times. Now lie on your side and practice the arm stroke without making a conscious effort to move the legs.

After you have practiced moving the arms and legs separately you are ready to continue the stroke. Push from the bottom and glide on your side. While gliding, take one stroke and stop, then take two strokes and stop, then three, then four, and finally continue to swim uninterruptedly. Here is an easy way to remember the timing on the stroke: as your hands move together and meet in front of the chin, the feet move apart; and as the hands return to their starting position, the feet also return to their starting position.

Side Stroke: Things to Remember

1) Keep your hands under water at all times; 2) Hands meet in front of chin; 3) Low hand is extended forward and top hand extended back during resting phase of stroke; 4) Press low hand, with arm straight, to a position below the shoulder before starting to raise the hand toward the chin. Keep top hand close to the body as the hand moves forward.

The power phase of the kick occurs when the legs snap together. Be certain to stop them when they come together. Do not allow them to cross. Inhale as legs come together. Exhale at all other times.

The coordinated movements are: Count 1—press low arm down and back; start to move top arm forward and move heels toward hips; Count 2—continue to move the hands so they meet in front of the chin and separate the feet to their maximum width; Count 3—move the hands back to their original position and snap the legs together; Count 4—rest.

SPEED SWIMMING

Speed swimming is valuable for two major reasons. There are many games and different types of competitive events where the

ability to swim fast is necessary for success. Even more important, your ability to swim fast for short distances could mean the difference between life and death. You may have to overtake a drifting boat, swim to a piece of driftwood, swim out of the way of an oncoming boat, or swim to help another swimmer. Learn to swim fast—it's an important part of your aquatic training.

The strokes usually associated with speed swimming are the American crawl and back crawl. In both strokes the arms are lifted above the surface, and this makes it possible to move them faster, while the legs alternate in an up-and-down movement resulting in a continuous forward motion.

American Crawl: How You Learn It

The leg action, known as flutter kick, was described when learning the human stroke was discussed. Continue to practice this kick until you are able to move at least 20-25 yards with ease.

The basic arm pattern was also described as a part of the human stroke. Stand in chest-deep water and bend forward until the shoulders are on the surface. Move the arms as in the human stroke but with this difference: lift the hand from the water and move it forward above the surface. Be certain to keep the elbow higher than the hand when moving the hand forward. In order to develop a smooth stroke, slide your hand into the water before it is fully extended. When you can do this in a standing position, practice the same thing while walking. Now do a prone glide and add the arm stroke. Keep your face in the water.

Practice coordinating the breathing with the arm stroke. Start in chest-deep water—move the arms and add the breathing. As the right hand enters the water and slides forward, the face is turned to the left for an inhalation. The face remains turned to the side until the right hand begins to press back, at which time the face is turned back into the water for the exhalation phase. After securing satisfactory results while practicing in a standing position, do the same thing while walking through the water.

The next step is to combine the legs, arms, and breathing in the complete American crawl.

- A. Start with right arm forward, left hand back, left foot high, right foot low and face turned to left. Inhale.



- B. Press right hand back $\frac{1}{3}$ the distance. Lift left hand from water and move it forward $\frac{1}{3}$ the distance. Alternate feet. Turn face into water. Exhale.



- C. Press right hand back $\frac{2}{3}$ of distance. Move left hand forward $\frac{2}{3}$ the distance. Put hand into water. Alternate feet. Keep face in water and continue to exhale.



- D. Press right hand back to thigh. Slide left hand forward. Alternate feet. Keep face in water and continue to exhale.



- E. Lift right hand and move it $\frac{1}{3}$ the distance. Press left hand back $\frac{1}{3}$ the distance. Alternate feet. Keep face in water and continue to exhale.



- F. Put right hand into water. Continue to press with left hand. Alternate feet. Turn face to left. Inhale. This completes the stroke. Continue uninterruptedly.



This is an example of the 6-beat American crawl, meaning there are 6 beats of the legs to one complete cycle of the arms.

Note also the inhalation is made on two kicks while the exhalation is made on four kicks.

American Crawl: Things to Remember

1) Lift the arms above the surface as hands move forward; 2) Elbow must be higher than hand as hand moves forward; 3) Hand enters the water at about $\frac{2}{3}$ of normal reach and slides forward just below surface to full extension—hand must be in line with eye on that side at completion of slide; 4) Keep arm straight but not stiff on the press back; 5) Start to lift the elbow from the water as hand approaches the surface at the end of the press; 6) Keep the feet below the surface; 7) Keep legs reasonably straight but not stiff; 8) Develop steady kick; 9) Turn face to side for breath—do not lift head.

Back Crawl: How You Learn It

You can practice the leg movement at home. The kick is known as the inverted flutter kick. Actually, the kick differs from the kick done on the front in two ways: the knees bend more and the kick is deeper. Sit on a bed or bench, and extend your legs from the hips down over the edge. Move your legs up and down by bending at the knees. Be sure the knees are never raised beyond the height of the hip. Keep the foot extended with a maximum distance of 12"-16" between the heel of the top foot and the toe of the bottom foot. Develop a definite rhythm.

To practice the arm movement on land, stand with one arm extended overhead about 4 to 5 inches from the ear and the other extended along the side of the body, with the back of the hand against the thigh. Alternate the arms in a circular movement. Attempt to develop a rhythmic pattern of movement.

Now for the water drill. Lie on your back with your chin tilted forward. Practice the kick while supported by your buddy. When you feel comfortable try the same thing unsupported. Continue to practice until you can move at least 20 yards in this manner. Keep your feet and knees below the surface. Develop a steady kick. Keep your feet extended.

Your buddy can help you to learn the arm stroke. Ask him to support you at your feet while you lie on your back and prac-

tice the stroke. Try to develop a steady uninterrupted pattern of movement.

The next step is to combine the leg and arm movement. It will take a great deal of practice to develop a smooth, even stroke.

A. Lie on the back. Start with right hand back, left hand at thigh, left foot high, right foot low. Inhale.

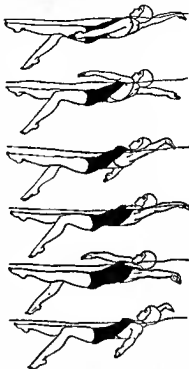
B. Press right hand forward parallel to surface. Lift and move left hand back. Alternate feet. Continue to inhale.

C. Continue to press right hand and move left hand. Alternate feet. Exhale.

D. Press right hand to thigh. Slide left hand into the water. Alternate feet. Exhale.

E. Lift and move right hand back. Press left hand forward parallel to surface. Alternate feet. Exhale.

F. Continue to move right hand and left hand. Alternate feet. This completes the stroke. Continue without interruption.



This is an example of the six-beat back crawl, meaning six beats of the leg to one cycle of the arms. Note also the inhalation is made on two kicks while the exhalation is made on four kicks.

Back Crawl: Things to Remember

1) Keep feet below surface at all times; 2) Develop deep and even kick; 3) Tilt chin forward; 4) Lift elbow above surface as hand moves back; 5) Slide hand into water after reaching back a comfortable distance; 6) When hand enters water it slides down and back to a distance of 5" to 8" before starting to press forward;

7) Hand presses through the water parallel to surface; 8) Develop an even stroke.

ENTERING THE WATER

Jumping or diving is usually a much more satisfactory method of getting into the water than climbing down a ladder or side of swimming pool. There are times, however, when diving or jumping is not advisable; for example, when the waters are of unknown depth, when there is debris on the surface, or when you suspect there may be hidden obstructions below the surface. Diving from a diving board offers you an opportunity to experience the thrill of flying through the air with the freedom of a bird and at the same time challenges you to control the movements of your body.

A few safety rules should be observed.

1. *Know the diving area.* It is possible to do a sitting or beginning dive in about four feet of water, but six feet of water is essential for a standing dive. Eight feet of water is necessary for low springboards and ten feet is a minimum requirement for high boards. The area should be clear of any type of obstruction.

2. *Breath control.* Beginning divers will probably be more comfortable holding their breath until they come to the surface. More advanced divers will exhale under the water.

3. *Eyes open.* This is essential, particularly under the water. Many divers close their eyes on the entry, but open them immediately. It will help the form of your advanced dives as well as your safety.

JUMPING

Of the two, diving or jumping, it is probably easier to learn to jump. In addition it is one of the safest methods of entering the water. The mastery of this skill should be a "must" in your aquatic training. First stand on a deck or dock, jump into shallow water, spring from the bottom and swim. Next, stand on deck or dock, jump into water slightly over your head, spring from the bottom and swim to the surface. And then, jump into deep water, push from the bottom, using the human stroke.

Diving from Deck or Dock

Sitting Dive. Sit on edge of pool, place feet on overflow trough. Bend forward, extend arms forward, hands together. Chin down on chest. Lean forward until you lose your balance. Push from trough as you are falling. Come to surface by lifting head, turning fingers up, and kicking if necessary.

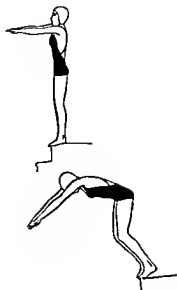


Squatting dive. With your arms in the same position as before, bend your knees and ankles so that your fingers are as near the surface of the water as possible. Keep your eyes on the front of your bathing suit and roll off your toes and enter the water about three or four feet from the edge of the pool. Swim to the surface.



Dive from one leg. Place one foot with the toes at the edge of the pool. Place the other foot about twelve inches behind. With the arms in the same position as before lean forward at the hips and gently push off the forward foot. The legs extend easily and the body enters the water in an extended position.





Standing front dive. The water should be a minimum of six feet deep, and the dive should be regulated according to the depth of the water. Stand at the side of the pool with the legs together, the toes at the edge of the pool and the hands at the sides. From this position bring the arms up to shoulder height, bend the knees slightly as the heels are lifted, push up, straighten the knees, and lean toward the water with the finger tips. The legs extend gently behind the hips until the top of the head is directed downward. Enter the water in an extended position.

Diving from a Spring Board

Diving as we now know it was developed in Europe and is a natural outgrowth of tumbling and acrobatics. Basically, diving is leaping from either a platform or spring board, followed by a vertical descent into the water, feet or head first.

Springboard diving challenges the performer to do his best and provides an opportunity to develop a graceful and supple body through skilled movements.

To be successful a diver must be well coordinated, ambitious, and possess courage, perseverance, and patience: coordinated to control the movements of the body on the board and in the air; ambitious to want to master new dives; courageous to try a dive even though there may be an element of physical danger; perseverance to stick to the dive until it is mastered; and patience to realize that good divers are not developed over night.

A successful dive is the result of many individual skills blending into one finished product. Skills must be developed in a logical sequence and combined to produce the desired result.

For example, before a diver can do a front dive from the board, he must learn how to spring on the end of the board. This skill in turn calls for balance, use of the eyes to calculate distance, and use of the arms to help maintain balance, develop a rhythm, and increase the height of the spring. The hips, knees, and feet are also brought into action by serving as shock absorbers and assisting in the lift.

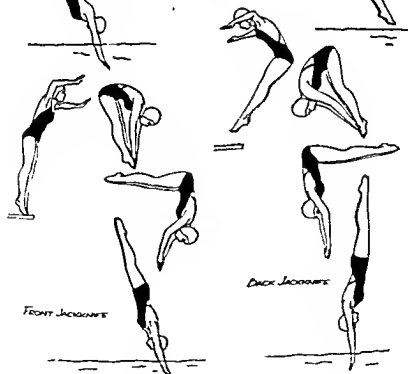
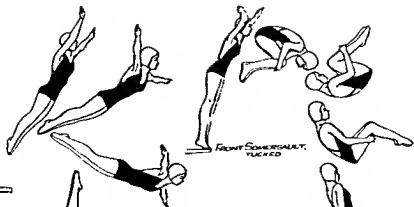
After the spring has been learned, the diver is then ready to learn how to move to the end of the board for the spring. This involves the starting position on the board, the run to the end of the board, the hurdle, and the take off. All of this happens before the diver actually goes into the dive. After the diver leaves the board, he is then concerned with the position of the body during the flight through the air and the entry of the body into the water.

The most effective way to learn to dive is to work with an experienced coach. There are so many details involved in diving that it is almost impossible to work alone and develop into a good diver.

Limitations of space make it impossible to deal with the spectacular high dives, but the artist has included sketches of the more popular ones to help you recognize them when you see them performed. If you want to learn more about fancy diving, you should consult some of the books listed at the end of the chapter.

As soon as you have mastered the skills that have been described in the preceding pages of this chapter, you are ready for a wide variety of fascinating aquatic activity. Boating, canoeing, and sailing, as well as surf-boarding, aqua-planing, and water skiing, are available at many camps and resorts. If you are a good swimmer, you can enjoy these activities safely. There are also many water games, stunts, comic dives, and water contests to challenge the advanced swimmer.

Life-saving skills comprise another area of aquatic activity that leads the swimmer on to greater accomplishments. In this area you can prepare yourself to be of service to others by learning how to prevent water accidents and how to make effective rescues. In addition, learning to be a life-saver will make you a stronger and more versatile swimmer.



SYNCHRONIZED SWIMMING

Synchronized swimming, the newest addition to the field of aquatics, for both men and women, involves performing aquatic movements to synchronize or "agree with" a specific accompaniment. In synchronized swimming the swimmers, the strokes, the stunts and the accompaniment are "together." The swimming action is determined by the music or rhythm used.

You will need to learn how to perform a series of various water movements; to know the exact timing of stunts and underwater movements; to adjust spacing in a formation easily; to anticipate strokes and stunts by "getting set" for the next movement; and to adapt a situation to the best interests of the group. Good individual performance is essential to good group work.

When you create a synchronized swimming composition, analyze carefully and thoroughly the music or accompaniment you will use. Play and replay the music until the measures (beats), phrases, and themes are clear. Decide which strokes and stunts best express the quality and mood of the music. The strokes and stunts selected should be effective for the number of swimmers and their abilities.

MODIFIED STROKES

All recognized swimming strokes and many adaptations and variations of each stroke are used in synchronized swimming. Most strokes need to be adapted for use in synchronized swimming so that you keep your face above water and lower your kick sufficiently to prevent any splashing of the feet. When more than one swimmer participates, the action is performed in unison or in a definite pattern. This requires a great deal of practice. The arm recovery over the water, the speed and direction of the arm movement through the air, and the position and timing of the arm re-entering the water should be simultaneous.

Frequently the rhythmic pattern of the music may be made more interesting by varying the stroke. Certain parts of the stroke may be accented, arm actions other than those of the stroke may be changed. Here are some variations you might try: change the accent in the front crawl by emphasizing the elbow lift; syncopate

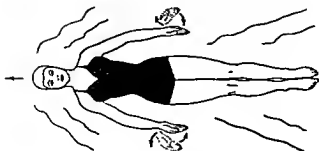


Fig. 1. Sculling Head First

the rhythm of the back crawl with a pause or add a series of slaps on the surface of the water.

Strokes or parts of strokes may be combined to form a satisfying rhythmic pattern. Try alternating the front crawl and back crawl or combining two fast side strokes and one slow side over-arm stroke. Hybrid strokes are parts of two or more strokes combined to establish a certain rhythm, pattern, or effect such as back crawl and side stroke or breast stroke and side stroke. These are merely suggestions. You will find it fun to create your own rhythms with strokes.

Water stunts, with swimming strokes, form the two basic movements used in synchronized swimming. The following fundamentals are important.

1. *Breath Control.* Because the body is frequently in an inverted position, breath control is very important. Sufficient breath should be taken to allow a stream of air to be let out through the mouth, nose and mouth, or nose when the body is under water. Nose-clips are sometimes helpful.
2. *Carefully controlled body movement.* The performer should understand the logical movement of the body through the water. The body will move in the direction opposite to that of the water pressure. Movements should be smooth and definite—not jerky.
3. *Sculling.* For head-first sculling see Fig. 1. To scull feet first hold the body in the same position as for head-first sculling. Turn your palms out and pull in small semicircles away from

the feet toward the head. The thumbs are toward the bottom of the pool. Relax the wrists and return to the starting position by completing the circle. The arms move continuously.

BASIC STUNTS

Below are six basic synchronized swimming stunts. More advanced swimming stunts may be built from these.

Top or Tub

Start in a back sculling position (Fig. 2). Bring your knees slowly toward the chest and let your hips sink so that you are "sitting" in the water. Scull with your arms so that you turn in a circle. To finish, slide the legs to the starting position.

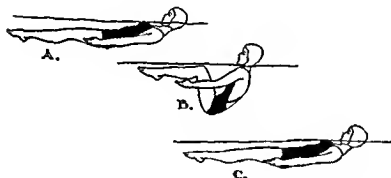


Fig 2. *Top or Tub*

Pike Surface Dive or Porpoise

Starting from a front layout position, drop your head forward and downward as your arms scoop sideways and then downward (Fig. 3). Bend your trunk forward from your hips and lift your legs to a vertical position. The important part of the arm pull is the push from the side position, back and then forward with force. To recover, lift the head, arch the back and swim to the surface.

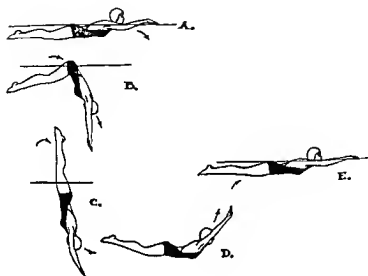


Fig 3. Pike Surface Dive

Front Somersault

From a front layout position drop your head toward the bottom of the pool (Fig. 4). Draw your knees to your chest. Turn your palms out, and swing arms simultaneously in a circle moving upward and backward, then downward and forward. Recover to starting position.

Dolphin

From a back sculling position drop the head backward, turn the palms out and press the arms down, around and up in a complete circle (Fig. 5). The arms draw the body, which is held in an arched layout position, around in a circle. Usually, two complete arm actions will bring the body to its starting position. If you have difficulty, try "dog paddle" movements after the first large circle.

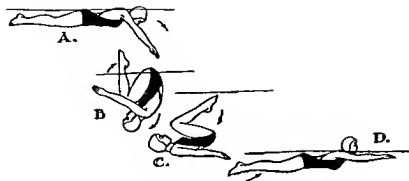


Fig. 4. Front Somersault

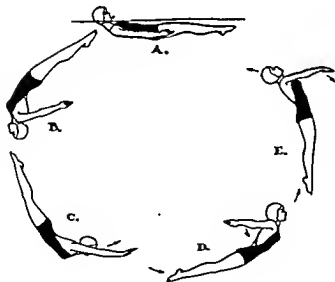


Fig 5. Dolphin

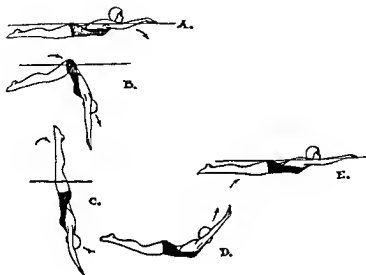


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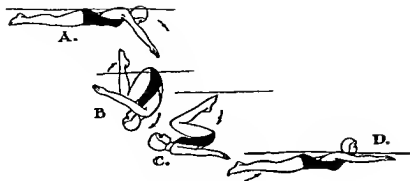


Fig. 4. Front Somersault

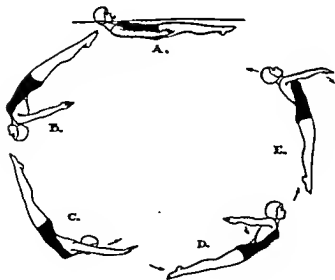


Fig 5 Dolphin

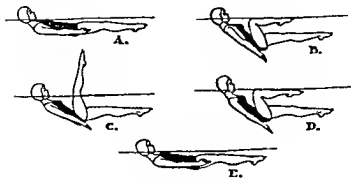


Fig 6 Ballet Leg

Ballet Leg

Starting from a back sculling position and with arms sculling continuously and forcefully, hold one leg in the extended starting position (Fig. 6). Bring your other knee to the chest (the hips sink about twelve inches) and then straighten it, pointing the toes toward the ceiling. Bend the knee to the chest and slide the leg back to the starting position. Repeat, using the other leg.

Shark

Rest in an arched position on one side just under the surface of the water (Fig. 7). The top arm is held loosely on the surface of the water above the shoulder (over the ear) and over the head. Pull with the under arm using a "shallow arm pull." The body circles backward. Hips are held in line with the arched body; the legs are extended and the toes pointed.

The above stunts and the suggestions for adapting strokes to fit music will help you decide which water activities will be suitable for the music that you select. Listen to the accompaniment again and make a tentative composition. Consider the entrance, basic strokes, the climax, and the exit. You don't have to use every stroke and stunt in each routine. Use enough variety to

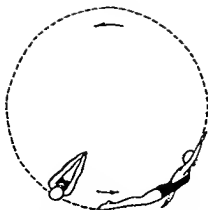


Fig 7. Shark

make it interesting and enough repetition to give it unity. Try the routine in the water. Allow for unlearned skills, space for the number of performers, and then revise your composition.

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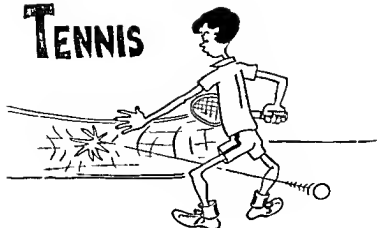
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TENNIS



Not very many people know much about the fascinating development of tennis. The game we see in the parks and playgrounds today is really hundreds of years old. How many know, for example, that in the fourteenth century, English kings banned tennis because it interfered with practicing archery? That the word tennis has been spelled over twenty different ways? That the Davis Cup tennis matches provide the only annual world-wide competition in any sport? Tennis in the United States has developed from the first dainty contest between two sisters in 1874 into a game which challenges the speed, skill, and endurance of our greatest athletes.

Tennis actually started as handball long ago in Greece. In the Middle Ages it changed to a game of batting the ball between two opponents. The early court was shaped like an hourglass, and the balls were leather, stuffed with hair. The racket evolved from hands, to glove, to glove with cords wrapped around it, to a paddle, and finally to our modern racket. A complicated scoring system originated with the nobility in England, but later was simplified so that everyone could understand it. The term "love," meaning "no score," was used as early as 1678 and originated from the phrase "for love," meaning "for nothing."

THE GAME

A game of tennis between two individuals is called singles. Between teams of two it is called doubles. When a boy and a girl play on each side it is called mixed doubles. The idea of the game is to hit the ball with a racket over the net into the opposite court so that the opponents, or opponent, cannot return it to your court. Play is started when one player, called the server, standing behind the baseline, hits or serves the ball over the net into the right service court. After it bounces, the opponent must return the ball back over the net so that it lands any place within the baseline and the singles sidelines, or in doubles, the doubles sidelines. After the return of service the ball may be hit either on a first bounce or before it bounces. The ball is then hit back and forth until a player makes an error, either by hitting the ball out of court, into the net, or by failing to hit the ball before it has bounced twice.

SCORING

Old traditions have given us the terms used in scoring. Points could easily be scored 0, 1, 2, 3, and 4, but they are called as follows:

0	Love
1	15
2	30
3	40
4	Game

The score 40-40 is called *deuce*

The point after *deuce* is called *advantage*

The server's score is always given first. Some examples of scoring: love-15, love-30, love-40, game to the server's opponent. Or, in the case of a tied score in the game: 15-love, 15-all, 15-30, 30-all, 30-40, *deuce* (instead of 40 all), *advantage server*, game, if the server wins the point after his advantage. If the server loses the advantage point, it is *deuce* again; and so on until one player wins two consecutive points after *deuce*, to win the

game. To win a game, a player must win at least four points and be two points ahead of his opponent.

The player who first wins six games and is two games ahead of his opponent wins the set. If one player wins six games and is only one game ahead, play must continue until one player is two games ahead. For example, a set may be won by scores of 6-love, 6-1, 6-2, 6-3, 6-4, 7-5, 8-6, 9-7, and so forth.

A contest or *match* is won when one player wins two out of three sets, or in national tournaments three out of five sets for men and two out of three for women.

SOME BASIC RULES

1. The server must serve from behind the baseline, standing diagonally opposite the court in which he is going to serve.
2. The server has two chances to serve into the proper court on each point. If both serves are at fault, he loses the point.
3. The server must serve in alternate courts throughout the game, serving the first point into the right service court and the second point into the left service court, and so on.
4. The server serves one whole game, then alternates serving game with his opponent for the rest of the match.
5. The serve must bounce before the player returns it. All other balls may be hit before the bounce, or after only one bounce.
6. Balls which land on the playing lines are good.

BASIC SKILLS

As in every other game, before you can play tennis with any degree of skill, you must first master the fundamentals. There are five basic strokes which the beginner must learn before he can call himself a tennis player. Anyone who is able to hit one or two strokes well, but is very weak in the others can be beaten quite easily by someone who has learned them all. The fundamental strokes you must master are the forehand, backhand, serve, volley, and lob. The descriptions given will be for right-handed players. If you are left handed, just reverse directions.

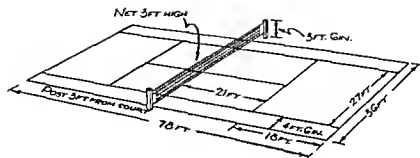


Fig. 1. The Court

The Forehand

The forehand is generally considered the best stroke to begin with because it is usually the easiest for most people and because most players play the majority of shots on the forehand or right side of the body.

To hit the forehand correctly you must hold the racket properly. The grip almost universally used is called the Eastern grip. This is done simply by grasping the handle of the racket as though shaking hands with it while the face of the racket is vertical to ground (Fig. 2). This grip is considered best because it permits a free swing at both low- and high-bouncing balls.

Hitting the forehand is a lot like hitting a baseball: turn the body sideways to the approaching ball, take the racket back with its head high, step into the ball as you start the swing, and follow through freely and completely. Instead of swinging a bat with two hands, though, you are swinging a racket with one hand. The racket head should be kept higher than the wrist throughout the entire swing (Fig. 2).

If the racket head drops and the wrist straightens out, you will not be able to control where the ball goes. The racket should meet the ball about waist high at a point even with the left foot.

Bend the knees for low-bouncing balls so that the ball is hit about level with the waist. As in hitting a baseball, you never stand erect with straight legs, but keep the waist and knees bent slightly depending upon the height of the ball you are hitting. This low, relaxed stance is necessary also to start and stop quickly, as you must to get in position to hit the ball. In baseball the batter stands in one place waiting for the ball to be thrown to him. In tennis your opponent is trying to hit the ball away from you; so you must run to get in position to hit it.

It is important in aiming the stroke that the racket head travels in a straight line rather than a looping arc as it hits the ball and follows through. This is why you should stand with your side to the net, step toward the ball and complete your swing with a full follow through in the direction of the net. As the racket meets the ball, the wrist must be firm to prevent the racket from wobbling and spoiling the stroke. Watch the ball intently all through the stroke; taking your eye off the ball even momentarily will result in many errors.

In practicing the forehand as well as the other strokes, work on good form. In the beginning do not worry about where the ball goes. If you worry about hitting the ball accurately every time instead of working to perfect your stroke, you will develop bad habits that may prevent you from ever becoming a very good tennis player.

The Backhand

As soon as you have gained a little confidence in hitting the ball with a good forehand swing, you should begin working on the backhand. The backhand is the stroke played on the opposite side of the body from the forehand, or the left side.

For the backhand grip merely turn the hand from the Eastern forehand grip about a quarter turn to the left. The base of the thumb and the thumb support the racket on impact with the ball. The palm of the hand is now on top of the racket (Fig. 2).

In hitting the backhand, turn your right side toward the net. You will notice that you can take a longer, easier swing on the backhand than the forehand. Many players turn almost away

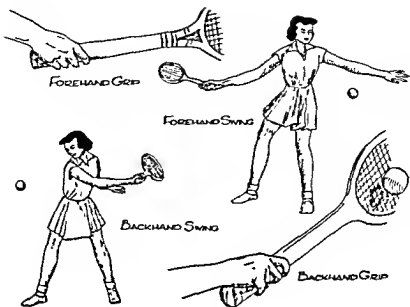


Fig. 2

from the net in order to take a longer swing before hitting the ball. Again you take the racket back as the ball approaches, keeping the racket head high, knees flexed and waist bent forward so the arm will swing free from the body. Keep your eye on the ball and start the swing so that the racket meets the ball even with the right foot (Fig. 2). Keep the wrist firm and follow through fully. At the moment the racket meets the ball on both forehand and backhand, the weight has shifted over the forward foot.

After you are able to hit the backhand with some confidence, a little experimenting with timing, hitting the ball sooner or later, will enable you to vary the directions of the stroke, either cross court or down the line.

An excellent way to practice your groundstrokes (forehands and backhands) is to hit balls up against a wall or side of a building. Virtually all good tennis players have had many hours of this kind of practice. Hitting balls back and forth across the net with a friend is another good practice.

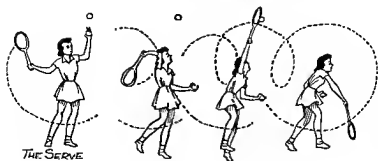


Fig. 3

The Serve

The serve is probably the next most important part of your game. If you can serve well and hit forehands and backhands effectively, you can play a fairly respectable game of tennis.

The grip for serving is about half way between the Eastern forehand and backhand grip. This permits you to reach upward to your full height comfortably while serving.

In serving, you must practice and learn how to toss the ball to the correct height for your swing. If the ball is not tossed easily and accurately to the desired height, the serve cannot be effective. If the ball toss and swing are well coordinated, the ball should be at the top of its rise, motionless, when the racket hits it. A little practice will help you work this out (Fig. 3).

In preparing to serve, stand with the left side nearest the net, the racket supported in front of you with the left hand. As you start a free, full, relaxed backswing, the weight shifts to the right foot as the left hand starts the ball toss. As the ball is tossed, follow through with the arm directly over the head so that the ball falls in line with the left eye (for right-handed players). If the serve toss is thrown in front of the body, the tendency will be to hit the ball into the net. As the upward swing starts, lean forward and pivot slightly so that the weight shifts to the left leg. Hit the ball with a full swing and recover balance by stepping forward with the right foot. Impart spin by slicing the racket face across the ball.

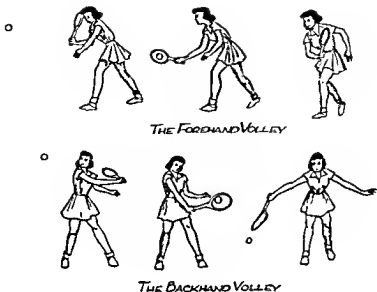


Fig. 4.

You should practice tossing and serving until you are able to hit the first serve into the proper court nearly every time. The most common error beginners make in serving is to hit the first serve very hard, out of court, and then the second much too easy, to avoid a double fault. Try to get the first serve in court.

The Volley

In tennis, the aggressive player tries to get up to the net so that he can cut off his opponent's returns quickly to win the point. To do this he returns the ball before it bounces. This is called *volley* from the French word *volée*, flight. To play the forehand volley you should stand six to eight feet from the net with knees flexed and waist bent forward, ready to move quickly in any direction. The grip is the same as the Eastern forehand. As the ball approaches the forehand side, move into position, left side to the net, racket head kept high. Move the racket back slightly and take a short decisive chopping stroke at the ball (Fig. 4). Chopping, or hitting the ball slightly underneath with

a short firm stroke, imparts backspin and helps lift the ball over the net. Only a short follow-through is necessary.

The backhand volley is also hit with a short chopping movement with little follow-through. Remember that it is important to keep low with waist and knees bent as you play the stroke. The volley should be the easiest of the strokes for you to master, if you practice it. A good way to do this is to have a friend toss some balls to you across the net, and as you improve, hit them to you from the baseline.

The Lob

The lob is the stroke used to hit balls over the head of the opponent who is playing at the net. It is played in much the same way as the forehand and backhand; in fact, the more it looks like a forehand or backhand drive, the more it will surprise the person at the net.

Using the same form as for the forehand or backhand, practice hitting balls high enough so that the net player cannot reach them. Lobs should land close to the opponent's baseline. Remember that if your opponent knows you are going to lob, he can quickly run back to smash it away.

The overhead smash is used to hit lobs and high balls at the net. It is played just like a flat, hard serve; so no description of it is needed. The smash, because of its speed and the position of the player near the net, is usually a point winner.

STRATEGY

Strategy in tennis requires using your strengths against your opponent's weaknesses. A few points which should help you outplay an opponent are listed:

1. Hit balls deep to your opponent's baseline and keep him back away from the net.
2. The net is six inches lower in the center than on the sides; so cross court shots are safer than those down the line.
3. Keep your opponent running.
4. If you are winning, don't change your style of play. If you are losing, try something different.

5. Always try to make the first serve good.
6. Play an aggressive game and go to the net often.
7. Don't try to make every stroke a winner. Keep the ball in play until you get an easy ball to hit hard.
8. Try to figure out your opponent's weakness and take advantage of it.
9. In doubles, both players should be at the net or back of the baseline. Do not play one up and one back.
10. In doubles, keep the play up the center most of the time.
11. Never give up.

COURTESY AND SPORTSMANSHIP

The courteous and sportsmanlike tennis player is one who plays the game without trying to take unfair advantage of his opponents. A few precautions that you should observe are:

1. Flip a coin or spin your racket for choice of service (the trim gut is smooth on one side, rough on the other).
2. Retrieve your share of balls.
3. Never contest a decision.
4. Offer to play over again any doubtful decisions to your advantage.
5. Don't rush your opponent or delay the game unnecessarily yourself.
6. Don't lose your temper or make any excuses for your play.
7. Always shake hands after a match. Be friendly and courteous.
8. Before going onto another court to retrieve a ball, wait until the play is completed.
9. Play your best at all times.
10. Never question an official's decision.

SELECTION AND CARE OF EQUIPMENT

Rackets, balls, and clothing are the articles of equipment you should be careful in selecting.

Choose a racket which feels comfortable to you. Boys usually use rackets weighing from 13 to 14 ounces with a $4\frac{3}{8}$ inch handle.

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SELECTION AND CARE OF EQUIPMENT

Rackets, balls, and clothing are the articles of equipment you should be careful in selecting.

Choose a racket which feels comfortable to you. Boys usually use rackets weighing from 13 to 14 ounces with a 4½ inch handle.

Girls' rackets are generally $12\frac{1}{2}$ to $13\frac{1}{2}$ ounces with a $4\frac{1}{4}$ inch handle. These weights and sizes are only approximate. Some authorities say you should use the heaviest racket and the largest grip you can handle with ease.

Most players prefer having their rackets strung with about 55 pounds tension. You should select racket and string separately rather than buying a racket already strung. Pre-strung rackets limit your selection and frequently are strung too loosely. To prevent the frame from warping store it in a press when it is not in use.

A type of multi-filament nylon is generally considered good because it withstands moisture, plays and wears well, and is less expensive by far than good gut. To protect your racket avoid playing in the rain; and when not playing, keep it in a moisture-proof cover.

Tennis balls pressure packed in cans and approved by the United States Lawn Tennis Association (USLTA) should be purchased. Even these should not be more than six months old because they may deteriorate in time. Non-pressure-packed balls quickly lose their bounce, as do balls which have been on the dealer's shelves for a long time.

Smooth or crepe-rubber-soled tennis oxfords are recommended. For tournament play it is a rule that you wear white clothing. A tee shirt or other short-sleeved shirt, white shorts, and socks are satisfactory.

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TOUCH FOOTBALL



The game of football has grown since the first college game between Princeton and Rutgers University in 1869 until today football is the king of school sports.

Students who did not have an opportunity of playing varsity football took every opportunity to use the fundamentals of football in many invented games. From an assortment of different games that used the football has grown the game of touch football.

Touch football provides for the player many of the grand thrills that come from regulation football. It involves most of the fundamentals of tackle football, such as passing, running, kicking, pass catching, and carrying the ball. The big differences between tackle football and touch football are that a "touch" is substituted for a "tackle" and the block in which a player leaves his feet is not allowed.

The game of touch football should be included in your program of fall team sports. It requires little equipment, and almost any open field will serve as a playing area. Here is a game that will give you fun, and at the same time contribute to your development of endurance, power, and coordination. A touch football player, also, gains a better understanding and appreciation of tackle football from his participation in touch football.

THE GAME

The game may be played in any open area, and the number of players may vary from 2 on a side to as many as 11 on a side. Equipment necessary to start the game consists of a regulation football.

The game is usually started in the same manner as tackle football—with a kick-off. However in some areas a punt or a forward pass is used to put the ball in play.

The team receiving the kick-off attempt to advance the ball by running and passing. Their object is to cross their opponents' goal line for a touchdown.

Usually, there are no limitations regarding who may catch a forward pass nor the number of forward passes in a single down. A team in possession of the ball is allowed four downs to advance the ball a specified distance or into the next zone. When a team achieves the distance or the next zone, it receives four additional downs.

If the team in possession of the ball fails to make the distance or the next zone in four downs, it loses possession of the ball to its opponents.

The ball is downed or dead when the player carrying it is touched by an opponent. The touch may be one or two hands. In some sections of the country, the touch is made by removing a flag from the player with the ball (Fig. 1).

Scoring in touch football is the same as in tackle football.

The rules outlined here will be helpful in standardizing the rules for your class, league, or the informal games in your neighborhood.

1. *Ball.* Regulation football.
2. *Field.* Regulation football field when available; otherwise, goal lines as agreed upon by the captains.
3. *Players.* Seven men shall constitute a team. There is no limit to the number of players employed in the backfield, but only half the team may play on the line.

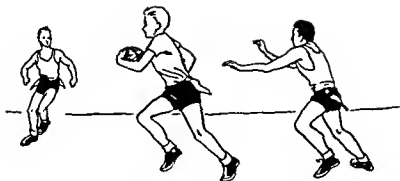


Fig. 1. "Flag" Football

4. *Downs and distance to be gained.* The attacking team must cross center lines of the field in 4 downs in order to gain another series of 4 downs and not lose possession of the ball to the opposing team.
5. *Tackling.* No tackling is allowed. A clearly discernable touch, one-handed, of the runner, below the shoulders and above the knees, ends the forward progress of the ball. No player is allowed to leave his feet in order to complete a tackle. Fifteen-yard penalty.
6. *Charging.* Players shall not violently charge one another on either defense or offense. Offensive blocking must be done between shoulder and knee. Blocker must not leave feet. Fifteen-yard penalty.
7. *Interference.* No player may, on the offense, violently hip, shoulder, head, or trip an opponent. Fifteen-yard penalty.
8. *Use of hands.* Players on the offense under no circumstances are allowed to use their hands on opponents. Defensive players may push other players aside to make the touch; however, not with any show of violence. Fifteen-yard penalty.
9. *Offside.* Players must remain "outside" until the ball is passed. Five-yard penalty.

10. *Forward Passes.* One forward pass is allowed in each down. The forward pass must be made from behind the line of scrimmage (where the ball was put into play) for the ensuing down. The pass is illegal if the player making the pass is touched before the ball leaves his hand. Any player may make or receive a forward pass except the passer. A forward pass touched by two players of the offensive team is considered an incompleting pass.
11. *Backward Pass.* A backward pass may be made or received by any player at any point on the field of play.
12. *Fumbled Ball.* A fumbled ball at any time is dead and belongs to the team that fumbled the ball at the point of the fumble, the down and point to be gained remaining the same. A fumbled forward pass is ruled as an incomplete pass.
13. *Punt Formation.* When punt formation is announced the defensive team may not attack and the offensive team must punt within three seconds. Penalty—loss of ball.
14. *Time of game.* Forty minutes divided into two equal halves, or as agreed by the captains, shall constitute a game. A five minutes rest between halves.
15. *Personal Equipment.* No spikes or cleats on shoes are allowed. Head gears and shoulder pads are not permitted.
16. *Scoring.* Scoring is the same as in regulation football.
Touchdown. Six points.
Field goal. Three points.
Safety. Two points.
Point after touchdown. One point.
17. *Substitutes.* Any number of substitutions may be made at any time during the game. Substitutes must report to the referee.
18. *Blocked Kick.* A blocked kick that does not cross the line of scrimmage shall belong to the receiving team at the point where the ball hit the ground.
19. *Delaying Game.* Failure to put ball in play within 25 seconds after it is ready for play is delay in game. Penalty five yards.

20. *Other Rules.* In any situation arising that is not covered by these rules, the intercollegiate football rules will apply.

BASIC SKILLS

To be an excellent touch football player, you must acquire skill in all of the fundamentals of the game. Players at one time or another use most of the skills described below regardless of the position played.

Players Stance

1. **Line Stance.** Your position is on the line of scrimmage, with both hands, both feet, or one foot and the opposite hand up to or within one foot of this line; assume a comfortable position, enabling you to move forward, backward, or to either side easily and effectively without changing your position for the various types of play.
2. **Center Stance.** As a center your stance should never change because this would cause telegraphing. You should never look at your opponent, but be aware of the tactical situation. You should be the first man to the line. Assume a stance that is comfortable for you.
3. **Back-field Stance.** Your stance should be relaxed. You should assume a crouch or semi-standing position, behind the line of scrimmage, on the balls of both feet. Spread the legs for quick blocking or receiving of the ball. Avoid telegraphing.

Blocking

1. Your job in blocking is to keep your body between the defensive player and the ball.
2. Don't use your hands while blocking.
3. Don't lose your balance.
4. You should make contact with the defensive player first.
5. Your job is to keep in your opponent's way at all times.
6. Block with your shoulder and forearm.
7. You must not leave your feet, nor place your hands on the ground.

10. *Forward Passes.* One forward pass is allowed in each down. The forward pass must be made from behind the line of scrimmage (where the ball was put into play) for the ensuing down. The pass is illegal if the player making the pass is touched before the ball leaves his hand. Any player may make or receive a forward pass except the passer. A forward pass touched by two players of the offensive team is considered an incompleated pass.
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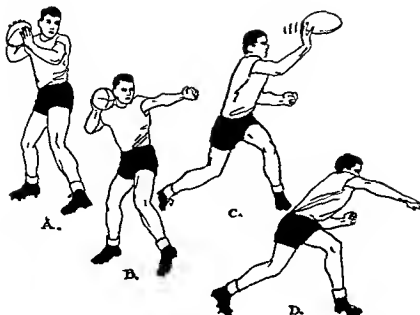


Fig. 2. Throwing a Pass

13. Short passes are thrown on a line; long passes are lofted.
14. Time your passes with the speed of the receiver.
15. Concentrate on your passing, and give all your attention to your receiver.

Receiving Forward Passes

1. You should always keep your eye on the ball.
2. The ball is caught with the hands, not the arms or body.
3. The hands should be extended, fingers spread and relaxed, giving easily as they touch the ball.
4. Don't fight the ball.
5. Long passes should be caught with arms extended over the shoulder.
6. Short passes should be caught with the arms cradled, and the receiver facing the passer.
7. Methods of catching the ball are:
 - a) Inverse catch—catching the ball like a baseball, with palms facing outward and away from the body.

Passing

1. Center Pass

a) From T-formation

- 1) The ball should be lifted with a stiff-armed sweeping motion.
- 2) Get the ball to the quarterback's hands as soon as possible.
- 3) The ball should be slammed up into the palm of the quarterback's upper hand.

b) Direct Passes

- 1) You should draw a bead on the spot you wish to pass to.
- 2) The pass should be of the soft spiral type and easy for the receiver to handle.

c) Punt-formation Passes

- 1) Accuracy and speed are essential.
- 2) The center can obtain more power in his pass by putting the ball just a little farther in front of him.

2. Forward Passing

1. After receiving the ball from center, place your fingers across the lacing.
2. Spread your fingers out and keep a firm grip on the ball.
3. Raise your arm and rock the ball behind your ear.
4. Your other hand should come up to guide the ball and steady it. This hand should be kept in front of the ball.
5. You should lift the ball in a smooth even motion.
6. Keep both hands on the ball until you pass it.
7. Your legs should be spread so you are comfortable.
8. If you are right-handed, your right foot should be planted firmly but still able to move in any direction.
9. Your left foot is the balance foot, also the direction foot.
10. When you bring the ball forward to pass, the weight shifts from the right to the left foot.
11. When delivering the pass your arm follows through.
12. You should deliver the ball with a wrist snap.

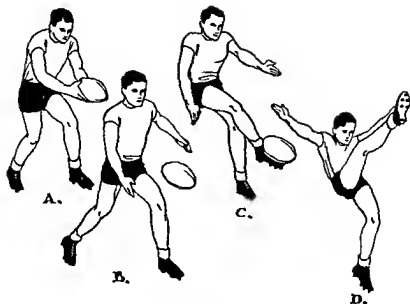


Fig. 3. Punting the Ball

3. The rocker-step-kick. You have both feet parallel; the ball is passed while you take a backward step with the right leg, shifting your weight to this leg; then take a step forward with your left foot, and kick.
4. Stepping back. With your left leg step back as the ball is being passed, then take a half step with the right and full step with the left leg and kick.
5. General hints on kicking.
 - a) Keep your eyes on the ball until it is kicked.
 - b) Extend your toe and snap your leg through the ball.
 - c) Hit the ball with the outside instep of your foot.
 - d) Lay the ball on your foot.
 - e) Never take more than two steps when kicking.
 - f) Your feet should be about six inches apart and parallel when you prepare to kick.
 - g) Your head and shoulders are forward, and your fingers should be spread and relaxed to receive the pass from center.

- b) Basket catch—catching the ball with both arms extended above either shoulder, palms facing in and elbows bent, forming a cradle for the ball.
- c) Leaping catch—jumping high into the air to catch a high pass, both arms and hands completely extended overhead with palms facing toward the body.
- d) Reverse catch—when the pass comes to the opposite side of the receiver than that for which it was intended, he is forced to twist his body to the opposite side, catching the pass with his arms extended, without slowing down his speed.

Carrying the Ball

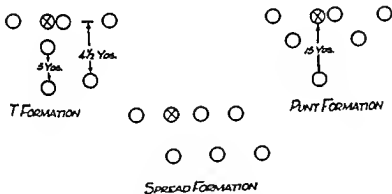
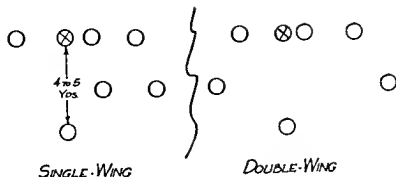
- 1. The ball should be held with one end under the armpit, and the other end covered by the palm of the hand and firmly grasped by the fingers.
- 2. The ball should be carried in the arm farthest from your opponent.
- 3. Run hard and elude your opponents by learning to reverse your field, stop and go, change direction sharply, dodge, side step, and execute fakes.
- 4. Follow your interference.

The Touch

- 1. Don't slap.
- 2. Touch between the knee and the shoulder.
- 3. Don't hold.
- 4. Depending on the rules, use the one- or two hand touch.
- 5. Maintain good balance and body control at all times.

Punting

- 1. The one-step kick. If you use the one-step kick, you stand with both feet parallel; take one step forward with the left foot, and kick.
- 2. The one-and-one-half step kick. Your kicking foot is slightly back; the kicking foot is brought up a half step; then the left foot takes a full step, and the ball is kicked.



Defensive Formations

They say that the best defense is a good offense, but remember that after you score the other team gets the ball and this puts you on *defense*. As you planned your offensive attack, you must plan your defensive attack. The defensive team should have certain kinds of formations just as the offensive team has. Here are three good formations:

The defensive team has a quarterback just as the offensive team does, and he tries to figure out which formation and play the other team will use. With this information, he calls for a

STRATEGY

Offensive and defensive strategy is a very important part of the game. You must learn to call the right plays at the right time and be able to pick out the weak spots on the other team. Always have a reason for calling every play. Save your surprise plays for an emergency. Mix up your pass and running plays, and above all know your team mates and what they can do. Follow a certain pattern when calling the plays and call them in a series with all the plays starting the same but having a different ending. Plan your attack with the following things in mind: down, yardage, score, time, position, weather.

For an example consider this situation. If the ball is on the other team's 30-yard line, second down and 1 or 2 yards to go for the first down, here is how you figure out what to call. First, with one or two yards to go, you figure the defense thinks you are going to run the ball, but you say to yourself that you have two more downs to make it, so you call a *pass play*. If the pass fails, you still have the other team guessing what you are going to do on the next two plays. Now, if it is late in the game and your team is behind, don't be afraid to gamble with the ball—getting beat by one point or 20, it is still a *loss*.

Offensive Formations

The offensive formations are: 1) single-wing, 2) double-wing, 3) T-formation, 4) punt formation, and 5) spread formation.

The single-wing formation is used when the tailback is a triple threat. An advantage of the double-wing formation is that the tailback can use the two other backfield men for fakes and single and double reverses.

The T-formation is a good one to use to fool the other team. But keep in mind that fast men are needed. The punt formation is used mostly for kicking, but can also be used for passing and running trick plays. Especially good for a surprise play is the spread formation. It also helps to loosen up the other team.

passes; so they should watch the offensive ends and halfbacks. The safety man must remember never to let a man get behind him on a pass or a run.

The whole defensive team should be alert for little things that the offensive team does that will tip their hand. Watch the players' feet when they get into their stance. Watch their eyes when they come out of the huddle. Do they have a good passer, does he throw long passes, can he run, and what are his favorite plays? Know the other men in the backfield. Who usually runs? Which ones go out for passes? How fast are they?

All these things are important if a team expects to win.

SAFETY AND COURTESY

Touch football has been considered by many the most hazardous of all physical education class activities. These hazards can be reduced by practice of the fundamentals, by good officiating, by playing according to the rules, and by playing on a suitably-surfaced area.

You can help eliminate the hazards of touch football by observing these fair-play practices:

1. Do not play rough because you may cause injuries and ill feeling.
2. Do not block or interfere with a player after he has gone out of bounds.
3. Accept decisions of the officials without argument.
4. Leave discussion of rule interpretations to your team captain.
5. Do not question the choice of plays of the quarterback during the game.
6. Do not talk in a huddle.
7. Do not intentionally hit someone with a foot, knee, or elbow.
8. Do not pile on after a man is down.
9. Do not use your hands while blocking.
10. Be appreciative of the progress and ability of those with whom you participate.
11. Consider suggestions of others.

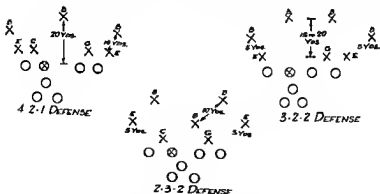
certain defensive formation. Here are some of the things you have to think about before calling the formation:

1. What part of the field the ball is on.
2. What down it is and how far the other team has to go for a first down.
3. What the score is.

For example, if the ball is on the other team's 5- or 10-yard line, you could use your 4-2-1 defense. Why? Well, you have four men rushing hard, which will stop their running attack; and if they pass, it will have to be a quick, short pass.

Now, let us say that it 3rd down with 9 yards to go. You would use a defense to stop their passing, kicking, or wide end runs. You could use a 3-2-2 defense, in which two men are pulled off the line and put in the backfield.

For another example, suppose your team is leading with only a few minutes to go, and you figure that the other team will throw long passes so that they can score before time runs out. You need more halfbacks so you would again use a 2-3-2 defense.



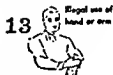
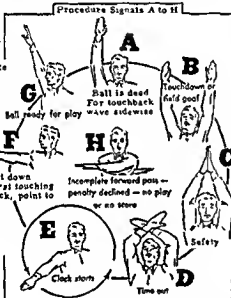
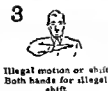
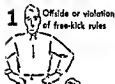
So you see, defense is *just as important* as offense.

Now that your defense is set up, you must remember that if you are a lineman you charge *low* and *fast* and get into that back-field as quickly as you can. If you back-up the line, you cover all running plays and short passes. The halfbacks guard against all

National
Federation

FOOTBALL OFFICIALS' SIGNALS

Foul Signals 1 to 20



NOTE: Numbers 4, 5, 8, 12 and 19 are purposely omitted

12. Observe the rules and regulations of the game.
13. Do not make any harmful statements to your opponents.

SPECTATOR PARTICIPATION

Through playing touch football you will be learning a great deal about tackle football. Whether you play the latter game or not, you will want to see and enjoy to the full the game as a spectator. To be a good spectator you should do the following:

1. Learn the rules of the game.
2. Learn the signals of the officials on the next page.
3. Watch the strategy of both the offense and the defense on certain plays.
4. At different times during the game pick out an individual player and watch how he plays both on defense and offense.
5. Notice the different types of blocking, in the line and downfield.
6. Put yourself in the quarterback's position and try to figure what play to use in the various situations.

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have been held every four years since then. In 1952 the 15th Olympiad was held at Helsinki, Finland, with 5,867 men and women from 69 countries taking part.

One of the greatest honors of both the ancient and the modern Olympics is winning the *pentathlon*, a word formed from the Greek words for "five" (*penta*) and "prize" (*athlon*). The modern pentathlon for men is composed of fencing, shooting, swimming, running, and riding.

Track events in a modern track and field meet now include sprinting, middle-distance running, distance running, cross-country running, hurdling, and relays. Field events include running broad jump, high jump, pole vault, hop, step, and jump, shot put, discus throw, and javelin throw.

TRACK AND FIELD EVENTS FOR GIRLS

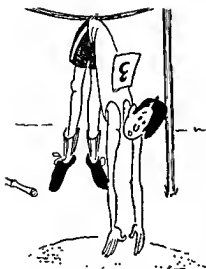
Track events in which girls participate are dashes, relays, and hurdles. Field events for girls include broad jump, high jump, hop, step, and jump; shot put, discus (or hurl ball) and javelin throws. However, usually the baseball and basketball throws are substituted for the above-mentioned throws for junior and senior high school girls. Only one trial is given for track events but three trials are allowed for field events. In the high jump three trials are allowed for each height of the bar.

Dashes

If you like to run, you will be interested in the dashes of various lengths. Before you run a dash, you should warm up by some easy jogging and stretching exercises. Never run a dash without warming up beforehand because you are liable to strain muscles.

Junior high school girls participate in dashes of 40, 50, and 60 yards in length. For senior high school girls there are 50, 60 and 75-yard dashes.

The dashes are quite short and are over with very quickly. For this reason the start is very important. A crouch start instead of a standing start gives you more drive and enables you to get away more quickly.



TRACK AND FIELD

Far back before historical record some of the Greeks began holding contests of foot racing on the plains of Olympia in Southern Greece. These contests grew in importance until all the Greek states participated in them, and victors in the games received the highest honors that a state could award.

The Greeks even based their calendar on the games, an *olympiad* being the four-year interval between two festivals. If two states were at war at the time the games were to be held, a truce was declared so that both sides could attend the games. In 776 B. C. the Greeks began keeping a record of the victors at the games, and the games were held regularly thereafter until A. D. 394—for nearly 1200 years!

THE OLYMPIC GAMES

To the original foot races the Greeks added many of the track and field events that we know, wrestling and boxing, chariot and horse races, and even contests in poetry and drama. Victors at the games served as models for the great sculptors, and poets like Pindar made odes in honor of the winners. The Greek Olympics were truly a festival of athletics and the arts.

The modern Olympic Games were revived in 1896 in Athens, and with the exception of the First and Second World Wars

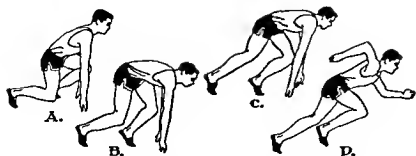


Fig. 1. Starting Form for Sprinting

Baton-passing is a skill which needs much practice. It is very important because poor baton-passing may lose the race.

In the shuttle relay the runner carries the baton in her right hand. As your teammate approaches, you wait behind the line with your right arm extended to receive the baton. You must not step on or over the line until the baton is in your hand or your team will be disqualified. In this relay, if no baton is used, a hand touch is substituted, and you must wait behind the line until your hand is touched by the preceding runner.

In pursuit relays the baton exchange must take place within a 20-yard exchange zone. If you are the runner to whom the baton is to be passed, you should wait inside the back line of the zone and must receive the baton while still in the zone. As your teammate approaches with the baton, you should begin running so that your speed equals hers as the baton is passed to you.

The passer carries the baton in her left hand and passes it to your right hand (Fig. 2). You must time this so the pass is completed before you reach the end of the 20-yard passing zone. As soon as you have the baton firmly in hand and are well underway, transfer the baton quickly to your left hand without breaking your stride.

The 220-yard pursuit relay is a standard event for senior high school girls. This means that each of the four team members runs 55 yards. Shorter distances are usually used for junior high school girls.

Let's go through a start. Remain standing, but relax until the official starter tells you to go to your mark. When you go to your mark, drop into a crouch position so that one knee is on the ground. If your right knee is down, the right foot will be farther back than the left foot. If you aren't using starting blocks, dig holes on the starting position for your feet. When you are down in a crouched position, your hands should be placed on the ground under your shoulders with your fingers together pointing outward from the body and the thumbs perpendicular to the surface of the track. Keep your arms straight. Figure 1 shows proper starting form.

On the command, "get set," bring your hips up to a level a little above your shoulders. This will bring up the knee that was on the ground. Hold this position until the signal "go" is given. The "go" signal may be given by a gun or by the word "go" and will come at least one second after the starter has the runners in the "set" position. On the "go" signal, bring rear foot forward, drive opposite arm forward, and swing other arm back. Your first steps as you drive from your start position should be short, and your body should be kept low. Many runners make the mistake of coming up straight on the start instead of starting out low. This means that they lose advantage of a crouched start.

If the distance is no more than 75 yards, you should be able to run at top speed for the entire distance. As you approach the finish, lean forward and continue to run at top speed for at least 10 yards beyond the finish line to guard against slowing down as you cross the finish line. Don't sit down immediately after the race, but remain active until your body adjusts to lowered activity.

Relays

Relays require good teamwork. In shuttle relays, members of the same team line up opposite each other and run back and forth between the lines. In pursuit relays, runners cover a certain part of the distance around the track. There are four members on the team, and the next runner starts as she receives the baton from the previous runner.



Fig. 3. The Broad Jump

Start with weight on the balls of your feet and your arms extended forward. Swing your arms back and forth two or three times, and at the same time bend and straighten your knees so that you have a bouncing rhythm. Be careful not to lift your feet off the board. After the few preliminary swings, as your arms come forward, spring as high and as far forward as you can. As in the running broad jump be careful to fall forward after you land.

Hop, Step, and Jump

This event is somewhat like the running broad jump. You take off on one foot from the board and land on the *same* foot. This completes the *hop*. Then you leap forward to the other foot for the *step* and immediately take-off from this foot for the *jump*, after which you land on both feet. Be sure to fall forward at the end of your jump (see Fig. 4).

High Jump

Most beginners will probably find the scissors type of jump easier, but it has certain disadvantages. You will find it more tiring than a layout type of jump (see p. 290) and you cannot gain as much height.

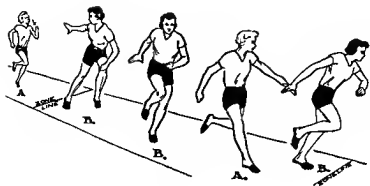


Fig. 2. Passing the Baton

The Broad Jump

There are two types of broad jump. Senior high school girls usually participate in the running broad jump, while the standing broad jump is an event for junior high girls.

There are four parts to the running broad jump: first, the run for the take-off; second, the take-off; then the flight through the air; and finally the landing. Speed at the take-off point is as important as the jump itself. Approach the take-off board as fast as possible. Adjust your stride so that you can take off from the board without losing speed and drive. If you haven't judged this properly, it may be necessary to shorten your last step to keep from stepping over the take-off board and committing a foul. Correct arm and leg movement add distance. Swinging the arms upward with force and springing with both legs will help to give you height and drive. Try to gain as much height as possible on your jump. When you land, be sure to fall forward because your jump will be measured from the nearest point your body touches (see Fig. 3).

In the standing broad jump, as the name indicates, you start with both feet on the take-off board. Place your feet comfortably apart and make certain that your toes are behind the front edge of the board.



Fig. 5 The Scissors High Jump

thrust forward with the other—the leading leg—keeping your toe up and your heel fairly close to the hurdle. At the same time, push your opposite arm forward toward the toe of your leading leg and swing the other arm backward, allowing your hand to go only as far as your waist. Keep your head up. As you clear the bar, snap the bent knee of your trailing leg forward and raise the lower part of your leg upward and away from your body. As

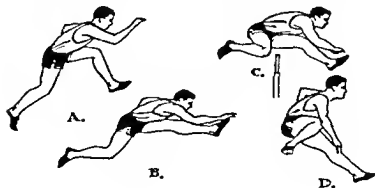


Fig. 6. Form for the High Hurdles

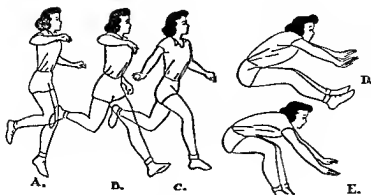


Fig 4. The Hop, Step, and Jump

You approach the bar on a diagonal and gauge your approach so that you arrive at your desired take-off point with the proper foot. In the scissors jump, the spring and take-off are from the foot farthest from the bar, and the nearer leg swings up and over the bar first (see Fig. 5). Be careful to swing your take-off leg up even higher than the forward one to avoid knocking off the bar. Land with your ankles relaxed and your knees bent. Added height, momentum, and proper balance are achieved by swinging the arms forward as you go up and over the bar.

Hurdles

In the hurdle course there is a 15-yard approach to the first hurdle, ten yards between hurdles, and a 15-yard finish. For high school girls there are 50 and 60-yard hurdle races. The hurdles are two feet high.

To be a good hurdler you will want to consider carefully which leg you want forward on the crouch start, which is the same as for the dash.

This decision will depend on how many strides you take before the first hurdle and which leg is the leading leg over the hurdle. Take off far enough away from the hurdle so that your leading leg and your body are stretched forward in order to get over it (see Fig. 6). To get over a hurdle, push off with one leg and

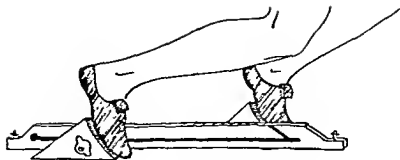


Fig 7. Starting Blocks

placed against the blocks (see Fig. 7). Your fingers must be placed back of the starting line. Your eyes should be focused about 5 yards down the track. At the command, "get set," lower your head and shift your body weight forward on your hands and front foot. On the "go" signal you explode into action with a powerful drive of both legs, the forward leg contributing most of the force because it is more fully bent and remains in contact with the starting block longer. With every stride you take, your arms should balance the movement of your legs and keep your body moving forward in a straight line. As you gain speed, you gradually straighten your body and by the time you are 15 yards out, you should be in full stride. Figure 1 illustrates the sprint positions.

In stride, first touch the track with the toes of the forward foot, then the ball of the foot. Most good sprinters place no weight on the heel. When your foot strikes the ground, momentum is already carrying your body beyond this point. Your feet should always point directly ahead. Propulsion for the stride comes usually from the powerful backward sweep of your whole leg and a strong forward push from your ankle and toes as the leg once again leaves the ground. Your arms will move rhythmically with your legs. Normally, your hands should not come above shoulder height on the forward swing or above your hip on the backward swing. When the stride is properly done, you will have the appearance and feeling of gliding along.

your leading leg crosses the hurdle, push it down toward the ground close to the hurdle, then snap your trailing leg over the hurdle swiftly and thrust it forward to take the first step. Land on the balls of your feet and in normal running position. Between hurdles, try to equalize the size of your steps and gauge them so that you arrive at the next hurdle on the proper foot.

In finishing follow the instructions for the dash. Be careful that your trailing leg does not pass outside a hurdle or you will be disqualified.

Basketball and Baseball Throws

The official basketball and league baseball are used for these throws. The throw is made from behind a line. You may make the throw from a running or a standing start, but you must not step over the line until your throw is *measured*.

Javelin and discus throws and the shot put are dealt with later.

TRACK AND FIELD EVENTS FOR BOYS

Every boy can find a track and field event in which his particular abilities will serve him well. There are few sports in which hard work and patient effort will pay off as much as in the events of track and field.

Sprinting

Unlike some other events, your body build does not seem to be important for success in sprinting. There are some champion sprinters who have been short, others tall, some heavy set, and others slender. The most important factor seems to be strength, quick reaction-time, and ability to concentrate, plus skill, speed, and coordination. You are a sprinter when you can run any distance up to and including a 440-yard dash. If you can take five six-foot strides in one second, you are a good prospect for a sprinter.

The man with the best starting ability will usually win a dash. Starting blocks are used instead of holes dug for the feet. The farther apart your feet are, the nearer your forward foot is to the starting line. In placing the blocks, you should be concerned about getting your best balance. The balls of your feet should be

Here are some pointers on strategy in cross-country running.

1. Running with teammates will often help you to do better. Some teams run in a group at least three-quarters of the way. Others run in two groups.
2. When your group is out of sight around the corner or over a hill, try to widen the distance ahead of your opponents. It is very discouraging to them to unexpectedly lose ground that way.
3. When you are passing a runner, try to pass easily, giving the impression of being fresh.
4. There is sometimes an advantage in running close behind an opponent since he sets the pace and can act as a wind-break.

Hurdling

High school boys compete in 220-yard low hurdle and 120-yard high hurdle races. In the low hurdles there is a 20-yard approach to the first hurdle, 20 yards between each of two-foot, six-inch hurdles, and a 20-yard finish. In the high hurdles there is a 15-yard approach and finish and 10 yards between each of the three-foot, three-inch hurdles.

The important point in hurdling is to run over the hurdles, not jump them. The start in hurdling is the same as in sprinting except that you must decide which foot must be the forward one so that you can arrive at the take-off position for the first hurdle on the proper foot.

The chief difference in form between low and high hurdling is the angle of your body as you go over the hurdle. In the latter you lean forward more and your leading arm is more extended (see Fig. 6).

The take-off for the hurdle should be far enough away to permit a forward lift of the leading leg without touching the hurdle. Bring your leading leg forward with the knee slightly bent as in running, because once you have cleared the hurdle you must continue your run. The leading foot should continue straight forward and up to clear the hurdle as you lean forward. Your opposite arm and hand should be stretched forward to balance your leg. As soon as the toe of the take-off, trailing leg leaves the track, that leg is brought quickly forward with knee bent. As it passes over the hurdle, it is lifted upward from your hip

Always run full speed across the finish line and for ten yards beyond it. Then slow gradually. Never throw yourself at the tape.

Here are three important things to remember in running in the sprints: use high knee action with a conscious effort to reach out with your foot; keep your "back kick" at a minimum; and keep your toes pointed directly forward all the time.

The 220-yard dash and the 440-yard dash are all classed as sprint runs. Some runners believe that the 440-yard dash is the hardest of all racing, since, except for a slight coast of about 75 yards in the middle third of the distance, it is an "all-out" race.

Middle-Distance Running

The most popular middle-distance runs are the 880-yard run and the mile run. The middle-distance runner must experiment with varying lengths of stride. As a middle-distance runner you need to learn to sprint for position, settle down into relaxed stride, and sustain a more or less extended drive for the tape. You will need to experiment constantly during practice to find the most comfortable and efficient style for you.

Cross-Country Running

Cross-country courses are usually run over hilly, rough country, and the course may be from one to six miles long. Cross-country running is a team event in which the first five to cross the finish line determines the score. The position of every runner can affect the score.

In cross-country, you learn to take advantage of wind breaks, such as hedges and buildings, and of other runners. In going up hill, you should shorten your stride and lean farther forward. In going downhill, do just the opposite: straighten your body, drop your arms, and lengthen your strides.

As in other distance runs, you should land low on the ball of your foot, drop down on the heel, then rock off the toes. Try to keep a short stride, a low, relaxed arm action, and low knee action even though you get tired.

athlete or his clothing. Broad jumping starts with the run of between 90 and 125 feet. You attempt to reach maximum speed about 45 feet from the toeboard.

To make sure that your approach to the take-off point is always the same, you will need two check marks, one at a point about a hundred feet from the take-off board where you begin your run, and the other about 45 feet from the take-off point. The step-off at the first mark should be with the take-off foot, and the second check mark should be reached on the same foot. These two check marks can be adjusted so that you will reach the take-off point on the correct foot.

At the take-off, you should jump up and not out. Your take-off foot hits the board with the knee slightly bent, and by taking a shorter, final stride, your body is directly over this foot. With an upward swing of your free leg and a rocking motion on the toes of the take-off foot, you concentrate on getting your chest as high as possible (see Fig. 3).

You will reach your maximum height with your chin and chest up and your feet trailing slightly. Your arms will be forward and out. Bring your hips forward and your feet about level with them. With your arms forward you are sitting in the air, with your feet about a foot apart and your knees slightly bent.

Land with your feet a foot or so apart so that your body will fall between your knees and over your feet. To keep from falling back into a sitting position, drop your chin on your chest, lean forward on your hips, flex your knees, and swing your arms downward and backward.

The Hop, Step, and Jump

The approach in the hop, step, and jump is similar to that in broad jumping. The length of the run varies with the person but usually is from 70 to 100 feet. Two check marks are used, one marking the starting point of the take-off foot, and the second marking the position of the take-off foot, about 45 feet from the take-off board. Your last few strides will probably be shorter than previous ones so that your body is directly over the take-off foot at the end of the board.

so that your thigh is almost parallel with the ground. Meanwhile, your leading leg is cutting down sharply as you are pulling the trailing leg through and around into running position for your next stride.

Remember that your legs go over the hurdle one at a time, and that you must maintain your body-lean over the hurdle to keep from catching your knee or ankle on it. Adjust your stride so that you arrive at the next hurdle on the proper take-off foot. Finish as described for the sprints.

Relays

There are many different types of relays, but the key to success in all relays is almost always the efficiency in baton passing. The four boys on the relay team should be the fastest men on the squad in the distance required of them. If you are the fastest man, you will be chosen to run the last leg or "anchor" in the race. The second fastest man starts. The slowest man will run the second leg, and the one with the most fight, the third leg.

In all relay races a 20-yard passing zone is provided in which the baton must change hands. If you are to run the next leg of relay, you get ready just inside this 20-yard area to start your part of the race. When the runner coming toward you gets about 6 yards away, you start. By the time you have picked up some momentum, he will have come close enough to pass the baton to you.

He will pass it from his left to your right hand, which you hold back of you (see Fig. 2). You will be slightly to the left and in front of him when the change takes place. He will have the major responsibility for placing the baton in your hand, since you will be looking forward as you run. You will then need to change the baton to your left hand to be ready to pass it to your teammate ahead.

Running Broad Jump

The main requirements for broad jumping are speed, balance, and fine coordination.

Measurement of the jump is made at right angles from the take-off board to the nearest mark on the ground made by the

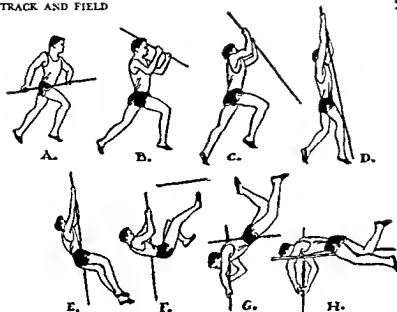


Fig 8. The Pole Vault

the left hand until it is over your head. Raise your right knee to add upward momentum from the push of your take-off foot, with your arms and legs extended. The take-off must be made from the left foot directly behind the pole and with the pole along the middle of the body.

Letting the pole do most of work, you start a pendulum swing upward. When your hips are level with your shoulders, pull up to raise your body. Attain body lift by sliding the underneath hand up to top hand, thus adding strength to the pull. Drop head and shoulders back; keep toes close to bar till the armpit comes up to the right hand. The pole should continue to rise until it is vertical. Let right leg scissor across the top of left leg and keep right shoulder as close to the pole as possible. Keep on pushing until you can look down and see hands and arms in full extension.

Now to avoid hitting the bar, push the pole away from you, and throw your hands over your head. You should drop to your feet while facing the cross bar. During the final push up, you are in a hand-stand position on the pole with your right foot high and with foot and shoulder close to the pole.

In this even, maximum height is not desired as it is in the broad jump since you are attempting to maintain forward speed. You can hop close to about 17 feet, step about 15 feet and jump about 18 feet, so that the hop is roughly 40% of the total distance covered. In the hop you land on the take-off foot, maintaining forward momentum. Now you swing your right knee up, feeling that you are floating through the air with your knee up, your take-off foot trailing and your body bent slightly forward. Your right foot touches the ground and you are ready for the jump phase. Use good broad jump technique and land so that your body falls forward (see Fig. 4).

The Pole Vault

You need strong arms, a strong shoulder girdle, good coordination, and speed to be a pole vaulter. Many good pole vaulters develop early, some 9th grade boys having been able to make 11-foot jumps.

Learning pole vaulting starts with careful attention to the grip on the pole. If your hands are placed too high, it takes greater momentum to get you up, and if too low, you can't get enough height. You need to learn by experience the maximum height for you to grip the pole. The location of your top hand is more important because the other hand may be 2 or 3 feet lower on the pole.

During the run toward the bar (Fig. 8) you should carry the pole with the tip about head high and slightly across the body and pointed in the direction of the run. You will need two check marks for your run, one to mark the position of the take-off run about 100 feet from the vaulting block (where you place the pole) and the other about 50 feet from the vaulting block, where the take off foot touches. The speed of your run will depend on your ability to use it in the vault. The faster you run the higher your grip can be and the greater vaulting height you can reach.

In holding the pole, your right palm faces out and your left palm down. As you approach the bar, bring your right hand forward past the hip, push the pole forward and upward through

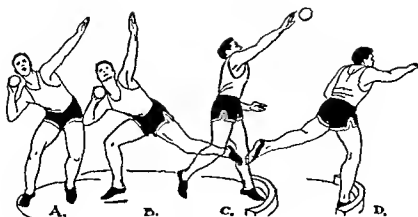


Fig. 10. The Shot Put

The Shot Put

Shot putting requires strength, speed, and coordination. A 12-pound shot is used in high schools, and an 8-pound shot in junior high schools. The secret of putting the shot is to *push* it from the shoulder, not throw it. To gain momentum you can travel across a 7-foot circle before releasing it.

The shot should be cradled in the fingers with the thumb on the outside for balance and held a little above and directly in front of the shoulder. The palm of your hand should face in the same direction as the shot is to travel. Your weight should be on your right leg and your shoulders should be level with the right shoulder well back. Put your right forearm across your chest, a foot in front of your body, and your left foot a few inches ahead of your right foot (Fig. 10).

Once the shot starts forward its forward motion should be constant and uninterrupted. Your first move is a hop from the right foot, so that you can make a shift from the right to the left foot immediately after. Bring your left foot up to the toe board. When your left foot comes down, both feet should be firmly planted on the ground and your hand should push forward, releasing the shot at the highest point with the snap of your wrist and fingers. Putting action is a lifting of the entire right side of

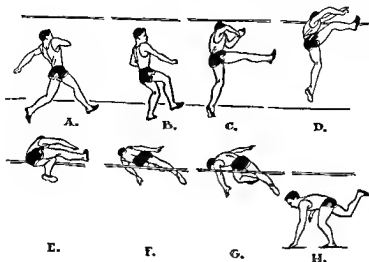


Fig. 9 The High Jump

High Jumping

Leg spring or bounce is needed for high jumping. Each competitor is allowed three trials on each height. You may go over the bar any way you want to, but you must leave the ground from one foot only.

You approach the bar with several easy relaxed strides, usually between 5 and 9, from approximately a 45 degree angle. Smooth, uniform strides are essential.

The western style is used by more good jumpers than any other (Fig. 9). On the jump you plant your left foot firmly and then swing your right foot through and upward. When your foot leaves the ground, move it up even with your right foot. Your head and shoulders will be about the same level as your feet when you cross the bar. Roll slightly to the right so that you drop face down.

After clearing the bar, you land on both hands and the take-off foot.

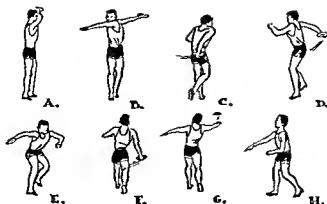


Fig. 11. The Discus Throw

your right foot is parallel to the edge of the ring and takes the remaining momentum of your whirling body.

The problem in throwing the discus is to get a lot of momentum by whirling the body without any serious loss of balance and control.

Javelin Throw

To be successful in the javelin throw you should have a strong throwing arm, strong legs, a well-developed upper body, and good coordination. The javelin is similar to the spear of ancient warriors and is thrown in much the same way. The present-day javelin is made of hard wood with a metal point. It must be at least 8.5 feet in length and cannot weigh less than 1.7 pounds. It is equipped with a whip cord wrapping around the center. The javelin is thrown from behind the scratch line and must hit the ground point first, but does not have to stick up. The throw is measured from the scratch line to where it first hits.

The Finnish method of throwing the javelin is the most effective way for many experts, but the American under-arm carry and a short hop into throwing position is the best style for beginners to learn (Fig. 12).

The approach to the throw varies from 65 to 100 feet. Most javelin throwers use three check marks, the first being the position

your body. As soon as the shot has left your hand, immediately reverse onto your right foot so that you won't foul by overstepping the circle.

Discus Throw

For high schools, the discus weighs 3 pounds, 9 ounces and is thrown from a circle 8 feet, 2½ inches in diameter. Measurement of a discus throw is taken from the nearest edge of the mark made by the discus to the nearest point on the circumference of the circle. All throws must fall within a 90 degree sector marked on the ground. You must not touch the circle rim with your body or clothing.

The discus is held with the thumb and fingers spread over the top and hooked over the rim just enough to control it.

You should first learn to throw the discus by scaling it from a standing position. Practice putting clockwise spin on the discus by whipping the arm forward and snapping the wrist. The discus should leave the index finger last. The flat side should be nearly parallel to the ground (at about a thirty-degree angle), because if it is thrown at too great an angle air pressure will keep you from getting distance.

There are many different ways to turn the body in order to get power behind the throw. Figure 11 shows one widely used way. Stand at the back of the circle with your left shoulder in the direction of the throw. Make a couple of preliminary swings by extending the right arm backward at shoulder height and then bringing the discus around to a point in front of the left shoulder. At the moment it comes around, use your left hand to check its forward movement.

When you make the turn for the throw, you pivot first on your left toe for a half turn and then shift to your right toe to complete the turn. As you pivot, keep your throwing arm back of your right hip. Make the throw by whipping the full straight arm forward and snapping the wrist. The discus should leave your hand slightly above your head.

To maintain your balance and keep within the circle, let your body swing on around after you have made your throw so that

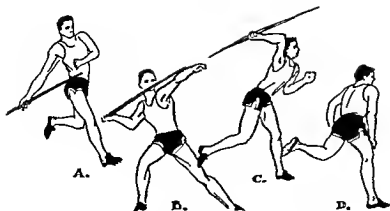


Fig. 12. The Javelin Throw

cross-country running, where part of the course may be on pavement, you will need a canvas shoe with crepe-rubber soles. Your shoes should be wide enough to allow movement of all your toes. Most jumpers and vaulters use a regular spring shoe, protected at the heel with rubber or felt. The regular field shoe is heavier.

Light-weight cotton socks are the most practical. Heavy wool sweat socks are not necessary except in longer races where blisters are a possibility.

Regular gym suits are satisfactory for track and field. They should fit loosely to avoid binding. In addition, you should provide yourself with a warm sweater and slacks or sweat pants to wear while you are inactive.

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of your take-off foot from the starting point; the second, 8 strides from the first; and the third, 6 strides beyond the second. These are important checks to help you arrive in balance at the throwing line without needing to think too much about the position of your feet. You should hit the third check mark with your left foot and allow from 18 to 22 feet for the hop and delivery. Up to this point, the javelin is usually carried under arm. Now it must be lowered and drawn back and a hop made as the body turns right for a powerful throwing position.

As you start to throw, you must have your body weight over your bent right leg, your left leg planted firmly forward, and the left side of your body toward the throw. Your throwing arm should be drawn well back with the point of the javelin lying across your chest at a 45-degree angle from the ground. Shift your weight to your left foot and transfer your body power to the javelin through an upward, forward, lifting of your right leg and a rotation of your hips. With your body weight now on your left leg, the javelin should leave your hand about a foot over your head, in a 45-degree angle to the ground. A wrist snap will give it additional force.

SAFETY IN TRACK AND FIELD EVENTS

Keeping yourself in good condition is the first requirement for safety in any sport. Warm up before every event, or practice. After you have finished a race, don't stop immediately, but come to a gradual stop by slowing down and jogging several yards. This may prevent strained muscles and will help your body to adjust itself to lessened activity.

Before and after track and field events and during waits for your trials in field events, put on your sweater and sweat pants to avoid chilling. Otherwise, the excessive tensing of muscles may result in a pulled muscle or charley-horse.

EQUIPMENT

Shoes are the most important item of your equipment. They may make the difference between winning and losing. For outdoor track events, the leather, spiked shoe is essential, but for

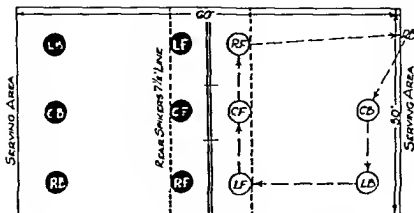


Fig. 1. The Court, Players Positions, and Order of Rotation

THE COURT

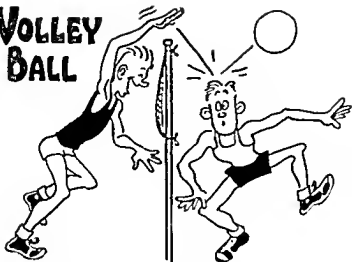
Volleyball is played on a court 30 feet wide by 60 feet long (see Fig. 1). The court is divided by a net 3 feet wide, the top of which is 8 feet above the floor for boys and 7 feet, 6 inches above the floor for girls. This height may be lowered 6 inches to a foot in accordance with the ability of the players. At least 20 feet above the net should be free from obstruction. The official ball has a 12-panel white-leather cover and must be approximately 26 inches in circumference and weigh not more than 10 ounces.

THE GAME

A volleyball team consists of six players, left forward, center forward, and right forward at the net, or front areas, while the left back, center back, and right back positions are behind the front divisions (see Fig. 1).

The team starting the play is known as the serving team. When it fails to return the ball over the net into the court legally, "side out" is called, and the other team becomes the serving team. Only the serving team may score a point. If the receiving team fails to return the ball over the net legally, the point is given to the serving team.

VOLLEY BALL



So popular has volleyball become, that it is ranked third in the world as a recreational team sport. Volleyball is one of the few popular games developed in the United States. In 1895, Mr. William Morgan, while working in a YMCA in Holyoke, Massachusetts, developed it as a team game to play indoors. Morgan first used a tennis net stretched about 6½ feet from the floor. For a ball he first tried the bladder of a basketball, but that was too light and slow, a basketball was too heavy and large. Finally he decided on a ball similar to the present volleyball, and one was made for him by a sporting goods manufacturer.

The object of the game is to keep the ball going back and forth over the net without its touching the floor. At first the game was divided into innings and any number of people could play.

In 1924 separate rules for girls were published. In 1928 the United States Volleyball Association was formed, and this Association has helped make volleyball a familiar game all over the country. A number of colleges now play intercollegiate volleyball. The first national tournament for college teams was held in 1919 at Los Angeles.

Rule Differences for Boys and Girls

1. Boys may play (volley) the ball off any part of the body; girls may use only the hands or forearm in playing the ball.
2. The $7\frac{1}{2}$ foot rear spiking line is not included in the markings on the girls court. However, the rules covering spiking are approximately the same for the boys and girls games.

Rules for Co-Recreational Volleyball

Volleyball is an excellent game for boys and girls to play together. Some suggested rules for this co-recreational game are:

1. The team shall consist of 3 girls and 3 boys who take alternate positions on the floor.
2. The net height for senior high school players should be 7 feet 6 inches, for junior high school players, 7 feet.
3. When the ball is volleyed by more than one player before going over the net, one of these must be a girl.
4. Except for the serve the ball may be contacted with any part of the body.

Modified Rules for Less Highly Skilled Girls

The official rules are sometimes adapted for beginning girl players. In this game there are eight players who take positions on the court and rotate for serve as shown in Fig. 2.

The game consists of two fifteen minute halves. The team with the highest number of points at the end of thirty minutes of playing time wins the game. The teams change courts for the second half and the team which did not serve at the beginning of the game takes the first serve for the second half.

In this game a player may hit the ball twice in succession, and if each of the three players plays the ball twice, the ball could be hit six times before going over the net. It is best to use one hit to control the ball and place it in position for you to make the second hit.

Basic Rules for Volleyball

1. Team captains toss a coin for choice of serve and court.
2. The first server is the right-back player. The server may not touch the boundary line while hitting the serve, but may strike at the ball with the hand in any manner, underhand, sidearm, or overhead.
3. A point shall be awarded to the serving team when the receiving team fails to return the ball in a legal manner to the serving team's court. Only the serving team may score.
4. After the opposing team has lost the serve, the team taking the ball for the serve rotates one position clockwise before serving. The player in the right back area then serves.
5. When playing the game, all players must clearly hit or bat the ball.
6. The ball must be volleyed before it touches the floor.
7. No player may touch the opponents' court. The center line under the net may be stepped on but not over.
8. No player may reach over or touch the net.
9. Each team may play the ball no more than three times before it is returned over the net.
10. No player may play the ball twice in succession unless two players touch the ball at the same time. A player may play the ball on the first and third hit.
11. If a ball touches the boundary line, it is good.
12. A player may run outside his own court to play a ball but not onto the opponents' court.
13. A backline player may not come up to the net to spike the ball.
14. The ball must pass between the side boundary lines as it crosses the net.
15. A team wins the game when it scores 15 points and has a two-point advantage, or if at the termination of 8 minutes of actual ball-in-play, that team has a two-point advantage.
16. A match consists of the best two out of three games.
17. The losing team serves first in the succeeding game.
18. Teams exchange courts at the end of each game and in the middle of the third game.

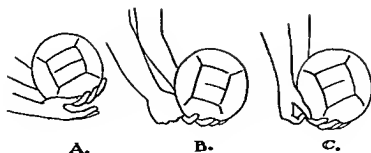


Fig. 3. Hand Positions for the Serve

to meet the ball every time you can. Concentrate on learning to control your volley before you try to hit it hard. The volley is used to pass the ball to a teammate, to hit it across the net, or to set it up for a teammate. Volleyball is more often a team game of volleying to other players than of batting the ball across the net from any position. Learn to volley accurately. Control the speed of your volleys.

Serving

Play is started by a serve made from behind the end boundary of the court by the player in the right-back position. The serve must go over the net on the first attempt.

The Underhand Serve. This is the easiest serve to learn, but it is also easy to return. Place the ball in the palm of your left hand and hold the ball toward the right side of your body. Have the left foot slightly forward and both knees slightly bent. Swing the right arm back and up and then forward and up. As you hit the ball off your left hand, give a little snap from your wrist and straighten the right arm. After hitting the ball, let the arm swing upward toward the top of the net and forward in the direction you want the ball to go. This is "follow-through."

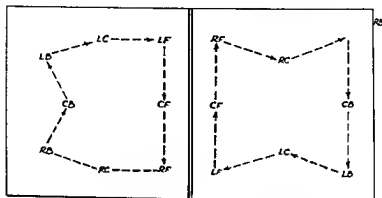


Fig. 2. Positions for Modified Game with Order of Rotation

BASIC SKILLS

Volleying

The first skill you need to learn is how to volley the ball (that is, keep the ball in the air) without lifting or scooping it. It must be clearly batted. To do this, you must use your fingertips and keep your wrists loose. Practice hitting a balloon into the air several times. Hit some from above your head and some from near the floor. This will give you the feeling of volleying with your fingertips rather than pushing or lifting it with your hands. In hitting the balloon you must give a little flick from your fingers and wrists to get it up into the air. Although the volleyball is heavier than the balloon, you do the same thing with it. Give a snap of the wrist as you tap the ball, straighten your arms, and follow through in the direction you want the ball to go. Get in the habit of using two hands on every volley.

If the ball is below your chest, your palms should be turned towards the ball and your fingers pointed slightly down. If it is above the chest, your fingers should point upwards and your elbows should be slightly away from your body. Keep your knees bent slightly as you wait for the ball, then straighten them as you hit the ball. Always get your body behind the ball. Jump

effective. The server stands with his side to the net, throws the ball directly over his head to a height of about 9 feet, brings his arm up, and contacts the ball about 12 inches over his head with the heel and palm of the hand directly behind the ball and the fingers slightly on top of the ball. The arm and hand travel slightly upward in contacting the ball in order to put top spin on the ball. The hand must be open and the ball hit with considerable force.

Passing

Make all passes upward and toward your teammate so that he has time to get under the ball. It will help to turn your body toward him. Always follow through in the direction you want the ball to go. A player on the back line should always pass to a teammate nearer the net unless he is the third person to strike the ball, in which case he must attempt to volley it across the net.

You should move quickly to the place where the ball will be and crouch so as to start the pass with the ball directly above your face. In other words, try always to get your nose under the ball. In order to reach this fundamental starting position, you must be alert at all times, ready to shift in any direction necessary to get your nose under the ball. The poor player reaches out for the ball. The good player gets under it and reaches up.

Setting up is the art of passing the ball fairly high and close to the net so that the spiker can leap into the air and smash it into the opponents' court. Since the success of the spike often depends upon how good the set-up is, it is very important that the set-up be accurate. As set-up man you should be able to use deception in passing the ball to the spiker. You may fake a set-up to one spiker and pass it to another. You should arch your back as you pass the ball so that the ball will go high and drop straight down over the designated spot. This will allow you to pass the ball back over your head without telegraphing your intention. You should pass to the outside of the front positions at least 12 feet high and at least 2 feet from the net. This will give the spiker enough time to go to the ball, jump up, and hit it.

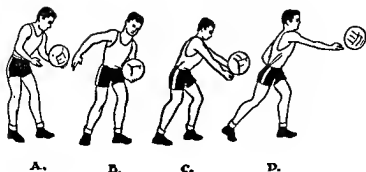


Fig. 4. The Underhand Serve

Contact with the ball may be made in one of several ways (see Fig. 3). The open-hand serve is the easiest for beginners. Force can be given either with the palm and fingers or with the heel of the hand. Intermediate and advanced players prefer to contact the ball with the fist, palm up, with the knuckles and heel of the hand.

The Overhand Serve. The most popular and widely used serve by experienced players is the overhand punch serve. You should stand in a stride stance, facing the net and throw or push the ball straight up over your left shoulder to a height of about 9 feet, then step forward with the left foot as you make contact with the ball just above the head with the heel and palm of the hand. The hitting arm is slightly bent. The hitting hand may be open or the fingers may be closed. Some players find that they can hit the ball better with the closed fist than with the open hand. The body motions in hitting the serve are the same as those of a catcher throwing to second base in baseball.

The Hook Serve. Another serve that is hard to handle is the hook or smash serve. It takes much more practice but is extremely

Blocking

The block is a defensive stroke against the spike. When your opponents are spiking, you should try to stop or slow down the hit by blocking the ball with your hands above the net. After deciding where the ball will be hit, you should get to that place and about 2 feet from the net. Jump with the spike at the same time as the spiker. Hold your arms upward with hands and thumbs together, fingers spread and pointing up. The ball will rebound from the straight fingers and be deflected back toward your teammates. Be careful not to swing the arms forward since you might hit the net and commit a foul. You will need to practice timing your jump.

Recovery from the Net

The ball may be recovered from the net if it is hit before it touches the floor. You must think and act quickly. Bend your knees to get well under the ball, turn your side to the net and reach away from the body. Whenever possible, hit the ball away from the net and up in the air to give your teammate time to get under it.

Footwork

Good footwork is a big part of successful volleyball. You must be active within your own position and shift with the play and be ready to assist a teammate, but be sure to cover your own position. Use short, quick steps or slides. Learn to jump. Keep your eyes on the ball every minute. Always try to get in line with the ball and under it. Never play the ball underhand when you can help it.

COURTESY AND SPORTSMANSHIP

Each sport has unwritten rules of courtesy and etiquette that are as important as the written rules of the game. For instance, in volleyball roll the ball to the next server. It is easier to handle and saves time. Be courteous to officials, opponents, and teammates. Compliment opponents on a good play. Volleyball is a

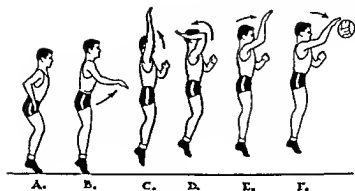
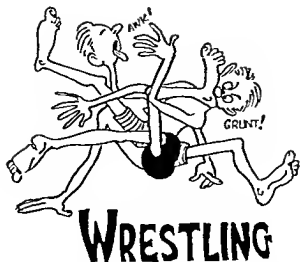


Fig 5. The Spike

Spiking

All players need to be able to spike a ball. The spike is a hard hit which brings the ball directly downward toward the net (see Fig. 5). The spike is made with the open hand, by hitting the ball with the heel of the hand with a quick whipping motion. The ball may be hit with one or both hands. The ball must be "set up" so that you can spike it. When possible, the set up should be made by the player to the right of you. This player should hit the ball straight up in the air about 5 feet above the top of the net one foot from it.

You should have your side to the net, knees slightly bent, and weight on the balls of your feet ready to jump. Hit the ball at the highest point that you can jump and reach. Flex the wrists and snap downward so that your hand comes down on the ball, hitting it downward across the net. You may straighten your arm as you hit the ball to add force. Be sure not to touch the net. You will have more control if you hit the ball with your open hand rather than with the fist.



Wrestling is the oldest of all sports. Greek myth tells of how Hercules wrestled with Anteus, and Homer in the *Illiad* gives an exciting account of Odysseus' contest with Aias. Greek athletes, their bodies glistening and slippery with olive oil, wrestled at the Olympics, and later Roman athletes strove for victory in the Coliseum. The Jews, the Irish, the Hindoos, the American Indian—every nation has had some form of wrestling. The Japanese made it their national sport, and invented remarkable variations like jujitsu, judo, and sumo.

From pioneering times to the present wrestling has been popular in America. Television has increased the popularity of professional wrestling. But you should keep in mind that professional wrestling today is so different from amateur wrestling that they are almost two different sports.

DESCRIPTION OF WRESTLING

Wrestling is a vigorous and stimulating activity that can be enjoyed by all boys, but for maximum participation and enjoyment it requires a high level of total body strength and endurance. Since wrestlers move in a series of lightning bursts, the type of explosive strength serves the wrestler best. The wrestler must

game in which players are expected to call their own fouls, especially at the net. When you touch the net or step over the line, you should raise your hand to inform the referee. Be a good sportsman both in respect to your opponents and your fellow teammates. Play your own position always. Compliment your teammates on good plays and don't criticize them for mistakes.

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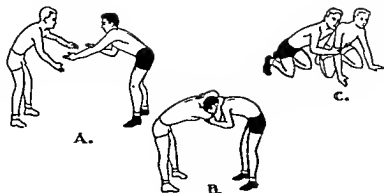


Fig 1. Wrestling Positions A, On Guard; B, Standing Referee's Position; C, Referee's Position on the Mat

1. *The on-guard position.* Take a slightly crouched standing position with the left foot slightly forward, the feet spread about shoulder width, and the knees bent, the body relaxed, and the hands about waist high.

2. *Referee's position standing.* Place the left hand on the back of the opponent's neck, head alongside head and tight against shoulder, the body crouched with the left foot slightly forward; the right hand grasping your opponent's left arm just above the elbow, the elbows held close to the body.

3. *Referee's position on the mat.* The bottom man is down on all fours with the offensive man kneeling at his left side with the right arm pressing over the back and held loosely about the waist. The left hand of the top man is placed at the bend of the left arm or elbow or just above it. The right knee must be outside the nearer leg and the left leg should be well extended sideward. The legs must be kept back and away from the opponent's hand.

An offensive wrestler is constantly attempting to take down an opponent to the mat or attempting to keep his opponent under control while on the mat. While keeping him under control, he is constantly trying to force his opponent off balance in an attempt to pin or bring the opponent's shoulder blades in contact with the mat for two seconds. When on defense the wrestler attempts

constantly maintain perfect control of body position and movements regardless of the surprise maneuvers of an opponent.

The object in wrestling is to win a fall by holding the shoulder blades of your opponent continuously in contact with the mat for two full seconds. Any fair hold, lock, or grip is allowed. The inter-collegiate rules prohibit the use of the hammer lock above a right angle; twisting hammerlock; over-scissors; strangle hold; full nelson; toe holds; hold over the mouth, nose or eyes; the interlocking of the hands or arms around the legs or waist while the defensive contestant has both knees on the mat; bending or twisting the fingers for punishment or to break a hold; or any hold used for punishment alone. Also there shall be no striking, gouging, kicking, hair pulling, butting, elbowing, strangling, or anything that endangers an opponent. A contestant who lifts his opponent clear off the mat is responsible for the safe return of that opponent to the mat.

Inter-scholastic wrestling matches are six minutes in length and are divided into three periods of two minutes each. A fall in any period ends the match. The first period starts with both wrestlers standing. If there is no fall, the second period starts in the kneeling "Referee's Position on the Mat." If no fall occurs in the second period, the third starts with the contestants in reversed position.

A fall is scored as *five* points for the winner's team. A decision is scored as *three* points. A draw is scored as *two* points for each contestant.

Points to determine the winner of each match by decision are these: *two* points for a take-down from a standing position; *two* points for a reverse from bottom to top position; *one* point for a predicament (a situation in which the offensive wrestler has control and a near fall is imminent); *one* point maximum for one or more minutes of time advantage over opponent; *three* points for a near fall; *one* point for escaping to a neutral position.

BASIC WRESTLING POSITIONS

There are three basic wrestling positions, and you must be thoroughly familiar with all three (Fig. 1).

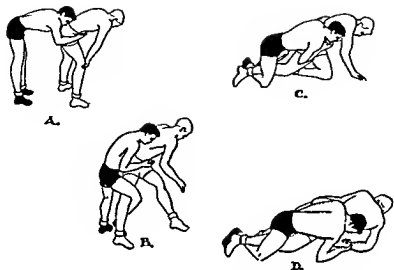


Fig. 3. The Leg Trip

hands. At the same time, pushing forward with your shoulder, quickly take a riding position.

TAKEDOWN SKILLS

There are several ways of taking an opponent down to the mat. As you gain in skill, you may want to add additional skills to the four basic ones described here. As in all wrestling maneuvers, takedowns are effective only when you move rapidly and catch your opponent off guard. Practice is required in all these movements. When learning and practicing, have your opponent offer almost no opposition. Increase the amount of opposition as your skill increases.

Leg Dive

From the standing referee's position, duck your head quickly, and pull your opponent's head and elbow forward (Fig. 4). Drop on both knees with your head against your opponent's side and your arms around his legs. Throw your head back and into your

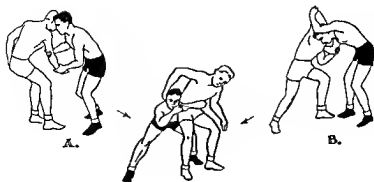


Fig 2 The Arm Drag (A) and the Arm Push Up (B)

to reverse positions or change from a defensive to an offensive position or to escape or free himself from the grasp of the opponent.

METHODS OF GOING BEHIND FROM A STANDING REFEREE'S POSITION

The *arm drag* and the *arm push up* are the two most effective methods of gaining advantage from the standing referee's position.

In the *arm drag* (Fig. 2) you grasp your opponent's right wrist with your left hand, grasp his right arm above the elbow with your right hand, pull with your right hand and go behind, locking hands together around his waist, keeping your feet well back.

In using the *arm push up* (Fig. 3), force your opponent's right elbow up with your left hand, duck your head under his right arm and go behind, locking hands about his waist. From this position you can take your opponent to the mat by a leg trip or leg drop.

For a *leg trip*, keep your feet well back with your head near your opponent's left hip, push his left foot forward with your left foot, bear down hard with your left forearm above your opponent's left hip, assume a riding position as your opponent drops to the mat. To use the *leg drop*, drop to both knees, grasp your opponent's ankles and pull his feet back with your

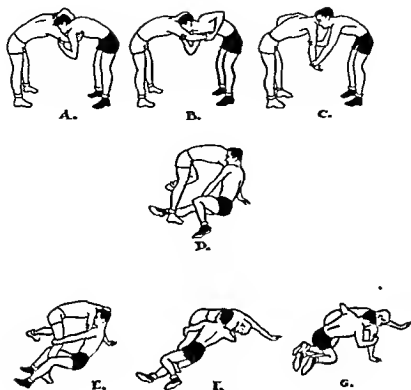


Fig 5. The Double Arm Drag

Heel Pick Up

Grasp your opponent's neck with your right hand, at the same time sliding your left hand to the inside of his right arm, grasping his upper arm (Fig. 6). Drop to the right knee, at the same time grasping your opponent's left heel with your left hand. Pull his left heel to your left, at the same time snapping down hard with the right hand on your opponent's neck. As your opponent touches the mat, you release your hold and secure an inside crotch position or other advantage hold depending on what he does.

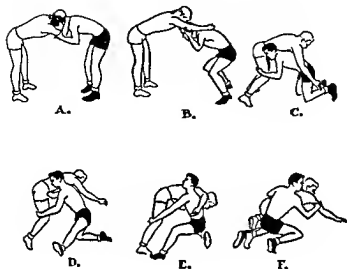


Fig 4 The Leg Dive

opponent's side, at the same time bringing your left leg forward and to the outside and pivoting on your right knee. Move your left arm up around his waist and straddle his right leg as he goes forward on the mat.

Double Arm Drag

From the referee's standing position, slide your left arm over your opponent's right arm and grasp him just above the elbow (Fig. 5). Bring your right hand across and grasp your opponent just below the right armpit. At the same time slide your left hand down to your opponent's right wrist. Pull his right arm to your right side, applying most of the power with your right hand. At the same time move to his right side and hook your right leg around his right foot. Release your left hand and grasp his right leg at the knee, pull forward and down with your right hand, at the same time swinging your left leg over his right leg.

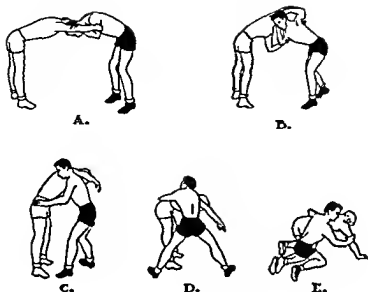


Fig. 7. The Head Drag

When on top you must remember the underneath man has four points of support. The object is to destroy one or more of these supports. Use your weight and leverage on the breakdown and conserve your strength and energy when possible.

Only four of the common breakdowns are explained here. They will be sufficient if you are just starting. Later you may want to learn more complicated skills from your physical education teacher and coach.

Far Arm and Double Bar

From the top position of the referee's mat position, hook your left leg around your opponent's right ankle, throw your right arm under his right armpit and grasp his left arm just below the elbow with your right hand (Fig. 8). Pull his left arm toward you, at the same time pushing your opponent forward toward his left shoulder where the support has been removed, at the same time grasping both hands around his left wrist. Be careful not to roll him too far or he will roll you over.

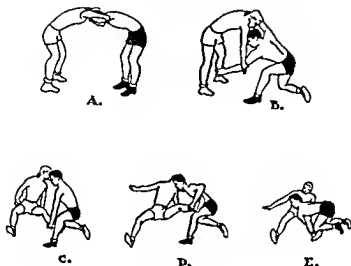


Fig 6. The Heel Pick Up

Head Drag

Drop your head slightly as you reach for your opponent's neck with your right hand (Fig. 7). At the same time slide your left hand to the inside of his right arm and grasp his upper arm. Holding his right arm in place with your left hand, duck quickly under his right arm so his elbow is resting on your neck. At the same time throw your head back, pulling down on his neck with your right hand and swinging around behind. If you pull hard enough with the right hand, your opponent will go forward to the mat.

BREAKDOWNS

One of the most important techniques of wrestling is breaking an opponent down and keeping him under control. This is a preliminary step to securing a fall. Your first objective should be to flatten your opponent out in a prone position. This prevents his escaping, puts him in a position where he can be pinned, and gives you a momentary chance to relax.

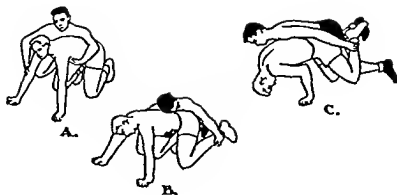


Fig. 9. Far Arm and Near Waist

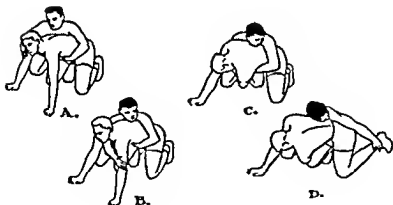


Fig. 10. Far Ankle and Far Arm

arm toward you, grasping his left wrist in both hands. Bring your left arm back and grasp your opponent's left ankle, forcing his left shoulder to the mat.

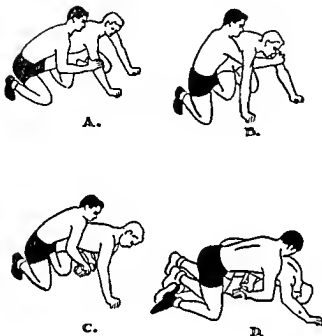


Fig 8. Far Arm and Double Bar

Far Ankle and Near Waist

Reach across with your left hand and grasp your opponent's ankle, at the same time placing your right arm around his waist. Pull his left ankle forward (Fig. 9). This will either break your opponent down or keep him under control.

Far Ankle and Far Arm

Hook your left leg around your opponent's right ankle, shoot your right hand across under your opponent's right armpit, and grasp his left arm just above the elbow (Fig. 10). Pull his left

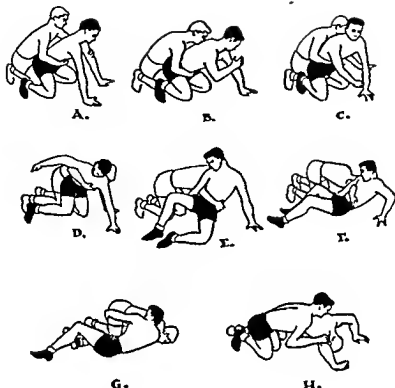


Fig. 12. The Switch

placed in a situation that will result in a fall or near fall. Here again we have included only four basic escapes combined with the reverses. Additional ones may be learned after the simple ones are mastered.

Switch

Knock your opponent's left hand off your left arm by using your right hand (Fig. 12). Bring your left hand across to your right side to counter for loss of support. Shift all your weight to your left hand and right foot, raising your right knee off the mat

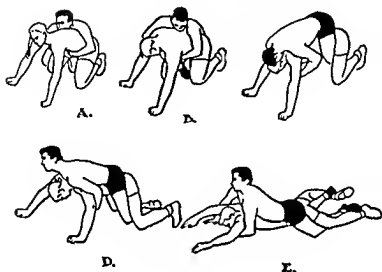


Fig. 11. The Stretcher

Stretcher

Hook your left leg around your opponent's right ankle; put your right leg to the inside of his right leg (Fig. 11). Step over his back and shove your left leg inside his left leg. Your legs are now both inside of his. Pull his elbows forward with your hands as you drive all of your weight forward to flatten him. As you lift your hands to put pressure on the small of his back, he will move forward into a prone position on the mat.

REVERSES AND ESCAPES

The real test of your wrestling ability is how well you can escape from underneath. You must try to lure your opponent by a series of rapid maneuvers.

Since an escape counts one point and a reversal counts two, it is always important to combine a reversal or takedown with the escape. Often when a reverse is secured, the opponent is

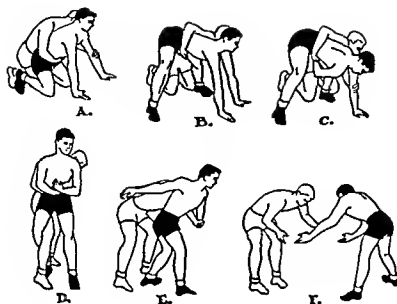


Fig. 14. The Standing Escape

Standing Escape

Jump to both feet, at the same time keeping both hands on the mat (Fig. 14). Grasp your opponent's right hand with your right hand, being sure to grasp all four fingers. Stand up on both feet and grasp your opponent's left hand with your left hand. At the same time hook your right foot over his right leg so that he can't lift you. Pull the hands apart and face him. Immediately take the on-guard position.

Hiplock Escape

Hook your left arm over your opponent's right arm (Fig. 15). Pull him forward and down, at the same time snapping his right knee off the mat and throwing him with your left hip. Pivot on your right knee while your opponent is still off balance and come even with him.

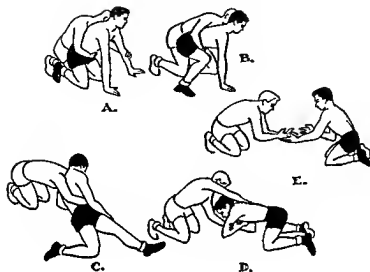


Fig 13. The Set Out

at the same time. Pivot on your right foot and bring your left leg through to your right. At the same time, throw your right arm over your opponent's right arm, grasping the inside of his right thigh. Lean back on your opponent's right arm and swing your body out from under your opponent. Take your left hand and reach for a rear crotch hold, pulling your opponent forward as you come on top.

Set Out

Bring your right foot forward and shift your weight to your right foot and left hand (Fig. 13). Throw your left foot forward as far as possible and drop on your left elbow. Pivot on your left knee and elbow and turn to face your opponent. Throw your arms out forward ready for action.

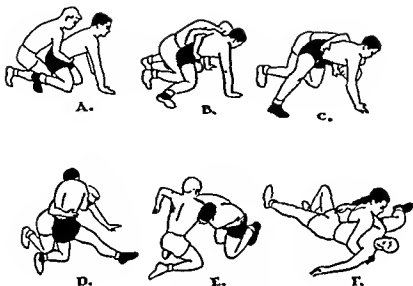


Fig. 16. The Hiplock and Whizzer

in your being pinned. Four of the fundamental pinning combinations are described here.

Bar Arm and Half Nelson

From the top referee's position hook your left leg around your opponent's right ankle (Fig. 17). Take the far-arm and double-bar position described under breakdowns. Take your right hand off your opponent's left wrist and apply a near half nelson to force your opponent on his side. As you start to turn your opponent on his left side, unhook his right ankle from your left leg. Increase the hold to a full half nelson, putting pressure on forcing your opponent on his left side. The pit of your elbow should now be at the back of your opponent's neck. Now grasp his left wrist with your right hand. Both hands are now on his left wrist. Keep driving until both of his shoulders are on the mat. Keep your body perpendicular to your opponent with your legs spread. This will prevent him from hooking your legs with his.

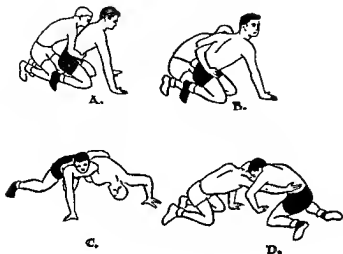


Fig 15. The Hiplock Escape

Hiplock and Whizzer

Hook your left arm over your opponent's right arm (Fig. 16). Pull him forward and downward as in the hiplock escape. Pivot on your left knee, putting your right arm across and under your opponent's head and left armpit. The right leg is straightened out and ready to drive off. Throw your left leg out from under. At the same time you push with the right leg, forcing your opponent backward and to the left. As your opponent falls on his back, you can hold him down with the weight of your body.

PINNING COMBINATIONS

After you have developed a fair degree of skill in takedowns, reverses, escapes, rides, and breakdowns, you are ready to start work on pin holds. It is very important that you have control over your opponent before attempting to pin him. Failure to do this may result in a reversal or a wild tumble which may result

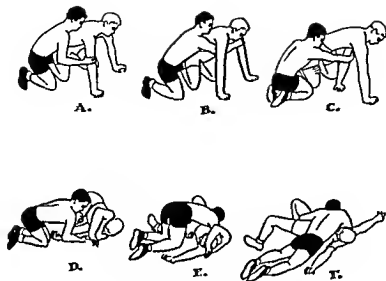


Fig 18 The Crotch and Half Nelson

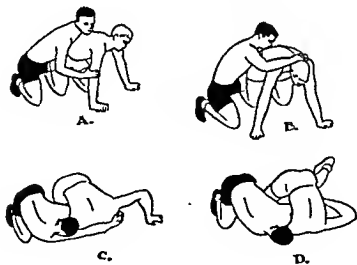


Fig. 19 The Three-Quarter Nelson

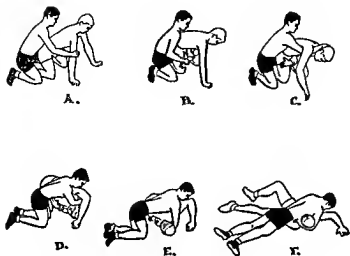


Fig 17. Bar Arm and Half Nelson

Crotch and Half Nelson

From the top referee's position, hook your left leg around your opponent's right ankle (Fig. 18). Pass your right arm across under your opponent's right armpit, grasping his left arm just above the elbow. Pull his left arm toward you as you reach with your left hand for a rear crotch somewhat near to your opponent's right knee. Pick your opponent up and put him on his left side. Use your right arm to place a half nelson, sliding it around the neck until you can grasp his left arm with your right hand. At the same time change your left hand from a rear crotch to an inside crotch. Keep your body perpendicular to your opponent with your feet well spread. If he turns toward you, drive his shoulders back to the mat. If he turns away from you, flatten him out.

Three-Quarter Nelson

From the top referee's position hook your left leg around your opponent's right ankle (Fig. 19). Bring your left arm from

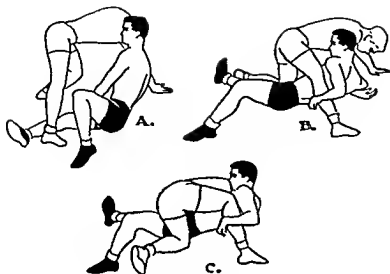


Fig. 21. Counter to Double Arm Drag

a riding position with your right arm across his face and your left grasping the farther ankle.

Counter to Double Arm Drag

After your opponent has pulled you forward, step across his body with your right leg followed by the left leg. This will put your body perpendicular to his (Fig. 21).

Counter to Heel Pick Up

As your opponent drops to his knees, hook your left arm under his right arm (Fig. 22). As he reaches for your left foot with his left hand, pry up on his right arm and grasp his left arm just above the elbow with your right hand. Throw your legs backward with your weight, causing your opponent to fall on his back.

Counter to Head Drag

As your opponent ducks his head under your right arm to go behind, hook your right arm around his right arm (Fig. 23). Jerk

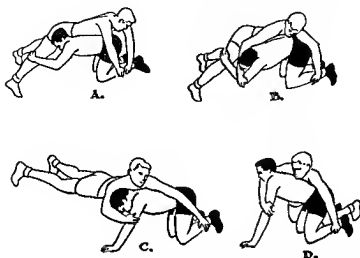


Fig 20 Counter for Leg Dives

around your opponent's waist and put it through from under his right side so that it comes out on the left side of his neck. Grasp your own left with your right hand. Clamp down on your opponent's neck, keeping your left leg hooked around his right ankle, at the same time pulling his right foot forward. Keep pulling his head downward and backward and his legs forward until his head is almost between his legs. As your opponent's shoulder touches the mat, shift your own weight backward to prevent him from kicking you over.

COUNTERS FOR TAKEDOWNS

Leg Dives

As soon as your opponent drops under you on both knees, fall on him with your legs straight out and well spread, making him carry all of your weight (Fig. 20). Grasp his farther ankle with both hands. After he is under control, cross his face with your right hand, grasping his arm above his left elbow. Free your leg by pulling on his arm and leg. Swing behind and straddle to



Fig 24. Counter to Switches: Near Arm Tie Up

down to bring his right shoulder and hip to the mat. At the same time throw your own right leg high over your opponent followed by your left leg. This is a good pinning position if your body is perpendicular to your opponent.

Counter to Switches:

Near Arm Tie Up

As your opponent pivots out to switch, catch his near arm at the elbow with your right hand (Fig. 24). As you pull his arm out from under him, throw your left shoulder and left arm into him, forcing him down on his right side. This is an excellent position to ride.

Counter Switch

When your opponent pivots out to a position where he is sitting on his buttocks, keep your left knee against his left hip, at the same time shifting all of your weight to your left foot and right hand (Fig. 25). As he turns to come on top, apply the same pressure to his left arm by prying up on it. Keep your left knee against his hip and off the mat. Start to pivot on your left foot. Move your right leg through, putting pressure on his left shoulder. All of your weight is now on your left foot and right hand. As

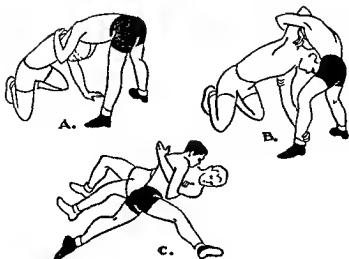


Fig 22. Counter to Heel Pick Up

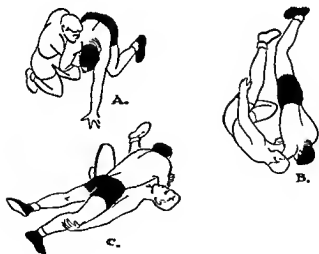


Fig 23 Counter to Head Drag

Try to keep your opponent tied up and force him to waste his energy. This not only gives you points, but may cause your opponent to become panicky and throw himself open to pinning holds. When applying a pin hold, be sure you are on balance and your opponent is under control. *This is especially important when your opponent is fresh. When you have a good hold, gradually apply more and more pressure, forcing your opponent to expend his energy, which will gradually wear him down to where he can be pinned.*

When in the top position always use your weight and leverage to good advantage. When you are behind in points, it may be necessary to allow your opponent to score a point by an escape so that you will have an opportunity to score two points by a take down. It is good strategy to have confidence in your own ability and at the same time to respect your opponent. Over-confidence or carelessness may cause you to lose a match. You must know and understand all the rules. Many good wrestlers have lost close decisions because of simple infractions of the rules.

COURTESY AND SPORTSMANSHIP

Always bear in mind that wrestling is an old and proud sport. You must do nothing to harm its fine traditions. There is no such thing as an alibi in wrestling. You and your opponent take the mat to do combat with the weapons nature gave you: your arms, legs, and brains. If both wrestlers have comparable natural ability, the wrestler who has trained the hardest, practiced the most, and has the best mental attitude is nearly always the victor. When you lose, never try to place the blame on someone else.

SELECTION AND CARE OF EQUIPMENT

Mat covers are extremely important. Rubber or plastic covers are the best and should be washed constantly with a disinfectant solution to eliminate infection. You should never walk on wrestling mats *with street shoes or allow others to do so.*

Beginning wrestlers should protect their shoulders, elbows, and knees *from mat burns. For this reason it is desirable to wear a close-fitting long-sleeve jersey. Knees should be protected against shock and burns. For this purpose light basketball knee-pads*

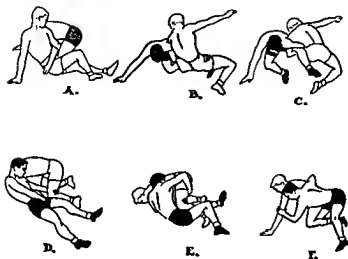


Fig 25. Counter Switch

you put pressure on him, swing away from him to keep him from countering. You must put enough leverage on your opponent's left shoulder to force it to the mat; then swing away wide and come up on top.

STRATEGY

The most important strategy is planned long before your first bout or match. It is essential that you have the basic skills well mastered and that you are in good physical condition. Once the match has started, you must always keep in mind what has occurred during the match. Remember what holds are working and which ones are not. Every move you make must count, since they all require you to expend energy.

You must try to gain a position of advantage as soon as possible. When you are in the top position, attempt to control your opponent with your best holds. If it is necessary to regain your wind after working hard, it should be done when your opponent is under control. It is usually necessary to wrestle in spurts, as few wrestlers can go all out all the time against a good opponent.



What is folk dancing? Essentially, it is learning and performing the dances of specific countries, dances that have been handed down from father to son, from generation to generation for so many decades that their origins are lost in the obscurity of the past. These dances, which once were an expression of the experiences and feelings of a nation, are a treasury of folk lore, and provide us with limitless opportunities for social recreation. By means of them you can learn a great deal about the cultural and historical backgrounds of other peoples—their beliefs, interests, desires, and habits. And you can also discover more about your own heritage.

FOLK DANCE PATTERNS

Each folk dance has a pattern of its own, even though similarities do exist among dances of a particular country and among dances of different countries where cultures have intermingled. Although many of the basic steps are similar, the total design for every dance is unique. This design or pattern is determined by the way in which steps are combined, by the figures and the formations of the dancers, by the tempo and rhythm, by the style and character of the movements, and by the meanings underlying the purpose of the dance.

may be used. Sweat pants with a large one-quarter inch thick quilted pad sewed inside to cover the knees may be used. Light rubber-soled basketball shoes are satisfactory, although some wrestlers prefer a soft shoe with a soft leather sole. Good traction and light weight are the qualities to be desired. In addition, you will need a good supporter and socks. All of this personal equipment should be kept very clean and laundered often.

SAFETY PRECAUTIONS AND MEASURES

Headgears should be worn for practice and matches in order to protect the head and especially the ears from injury.

Properly-conditioned wrestlers rarely receive injuries. When they do occur, they are largely confined to mat burns, abrasions, infections, strains, and muscle injuries, which if properly treated are not lasting or permanent. As a wrestler you can help to keep the sport safe for yourself and your opponents. Always compete with others of equal size, age, weight, and experience in as far as possible. Learn your skills well. They are the best protection you have while in contest. Be sure you are properly conditioned before engaging in extended competitive periods. Be sure you are warmed up every day before practice or meets. This should be done by a series of exercises that can be worked out with your coach and teacher. You must report every scratch and minor burn on the day they occur, no matter how insignificant they may appear to you. Proper first-aid treatment will avoid infection. It is advisable to stop work whenever signs of physical distress appear. Excessive fatigue does not contribute to your health or condition. Finger nails should be closely trimmed and rings should not be worn. Avoid horseplay and foolishness during practice sessions. Rough tactics, such as are simulated by the professional wrestlers, should not be practiced or tolerated.

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is easy—four even counts. Begin doing a series of schottische steps, slowly at first, taking four even counts for each step. The step will begin on alternate feet.

After you get the feel of it, increase the speed and begin to experiment. Try going backwards, or sideways, or in a zig-zag line with one schottische on the zig and the next on the zag. Now try it with a partner, standing side by side, inside hands joined, and beginning with the same foot. A light running step can be substituted for the walk (a run is merely a modification of a walk), or you might like to use a gliding step with the feet slipping along the floor as smoothly as though you were on skates. For your musical accompaniment use a tune having a $4/4$ or slow $2/4$ rhythm.

Polka

Here's another fundamental step that is a bit more difficult, but fun to do—the polka. The rhythm is a peppy $2/4$; so it is better to learn it slowly at first without accompaniment. A simple trick for learning the polka is to begin with a gallop around the room, one foot in the lead. Try eight gallops with the right foot leading, then change step to the left foot lead and do eight more gallops. This change step must be made quickly, without losing a count. Now try changing the lead foot after every four gallops, and now after every two—and there you are, doing the polka!

Let's analyze the step in terms of its basic movements. A polka is a combination of a quick hop, a walk, and two running steps. Starting with the weight on the left foot, hop left, walk right, run left and right. The next polka step begins with the weight on the right foot. Hop-step, run, run. The rhythm is uneven, and while the music for a polka is written in $2/4$ time, try counting the step ah-one, two, three, hold. The polka often is danced while turning around and around, and this takes practice! After you are able to do a turning polka by yourself, try it with a partner. Standing face-to-face, put your hands on your partner's waist as she rests hers on your shoulders. Begin with opposite feet the same as you do when social dancing.

Folk dances were created spontaneously out of the specific experiences of the common people—experiences having to do with work, play, religious beliefs, superstitions, war, occupations, courtship and marriage, birth and death, and domestic tasks. There are gay dances and sad ones, dances of imitation and of ritual, dances requiring little skill and others of great difficulty.

✓ Dance movements often relate to specific occupations such as farming, shoemaking, hunting, and fishing. Others come from attempts to imitate the actions and antics of animals, birds, insects, and reptiles, as we find in the buffalo, deer, and eagle dances of the American Indian, or the amusing Cucaracha (cockroach) dance of Mexico.

BASIC STEPS

Perhaps you have never danced before, and learning to do a dance step sounds difficult. However, when we examine these fundamental steps, we find there are only three basic movements involved—a walk, a hop, and a jump. Sounds easier now, doesn't it?

What must be remembered is how the body weight is supported, and when to change the weight from one foot to the other. In a walking step this weight change alternates from one foot to the other—left, right, left, right. Hopping, however, requires that the weight be maintained on the same foot during the take-off and landing—left, left, left, left. With a jump, the take-off can be from either or both feet, but the landing is on both feet, the weight evenly distributed.

Schottische

Bearing in mind the importance of the change of weight, see if you can do a simple schottische step. Take three walking steps forward and one hop in place. The weight will be left, right, left, left. Now try a schottische beginning with the right foot—right, left, right, right. As you practice this step you will need to know something about its rhythm, since each dance step has a rhythm pattern of its own. The rhythm for the schottische

art—costumes, crafts, games, songs, instruments. All these are combined to produce the colorful folk festivals. There are the traditional games, songs, and dances performed around the Maypole—originally an English custom that, according to most authorities, goes back to the ancient rites of the Druids who worshipped nature and celebrated the coming of spring. In some parts of our country annual folk festivals are staged by whole communities. Many a Western town and city has its Frontier Day celebration.

RECENT FOLK DANCES

Folk dances are not necessarily just those we have inherited from our forefathers. There are many folk dances of today that are of comparatively recent origin or are adaptations of older forms. Perhaps you have seen these in the movies or on television or have even danced them at school or community parties. Some of these are Patty-Cake Polka, Cotton-Eyed Jo, Heel and Toe Polka, Ten Pretty Girls, Rustic Schottische, California Schottische, Merry Widow Waltz, Black Hawk Waltz, Rye Waltz, and many others.

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The step is fast, light, and vigorous—real fun once you know how, and probably the reason why polkas are danced by many nationalities, at feasts and weddings and other festive occasions.

Mazurka

The mazurka step, basically, is a combination of two walks and a hop done to an even rhythm of $3/4$. It differs from the schottische and the polka because in a series it is always begun with the same foot. It usually is danced while moving sideways. Beginning with the left foot, and moving to the left side, slide left, draw the right foot to the left and transfer the weight to this right foot, then hop right. Repeat the step, again beginning with the left foot. To practice the mazurka in both directions, try a combination of three mazurka steps and three stamping steps in place. Now you are able to reverse your direction and begin the step with your right foot. Saying the words of the movements helps in learning step combinations—"slide, close, hop; slide, close, hop; slide, close, hop; stamp, stamp, stamp."

Waltz

Another fundamental step danced to $3/4$ time is the waltz, composed of three walking or gliding steps performed in an even rhythm. The weight is changed with each walking step, and the first count generally is accented. This accent can be made by stamping, by bending the knee during the step, or by a longer step on this first count. There are many variations of the waltz step, and it is a step found in the dances of almost every country. So learn to do it well, in many ways—slowly, with a gliding step; quickly, with a running step; in all directions, turning, forwards, and backwards. The waltz not only forms the basis for many folk dances, but is an important element in social dancing; so you will have many uses for it once you have it mastered.

LEARNING ABOUT THE "FOLK"

As we learn to adapt these fundamental steps to the patterns of folk dances, we shall be led to explore other elements of folk

ing" position again. As the dances become more complicated, the ladies or the "gents" may shift their original position, but always to the specific direction of the caller.

A SIMPLE DANCE

Let us try a very simple dance. Form a set as directed above, and four couples of you stand in the square described there, and take the numbers assigned to you. As the music starts and the rhythm gets established, the caller will probably call, "Honors right!" This call is primarily for the men; so each man will turn to his partner, who always stands on his right, and gives her a bow. And she bows to him. Then "Honors left," the call will continue, and the man will turn left, face and bow to the lady on his left (who is always called his "corner"), and she returns the bow. Then the call comes, "All join hands and circle left," and everyone in the square joins hands with the person on either side of him, and they all move to the left. Each uses a light shuffling step,—left, right, left,—with his feet hardly leaving the floor, and his body erect and happy, and every part of him registering the accent of the music.

Then, "Break and swing!" the call will come. Everyone stops, lets go of hands and takes his partner in regular dance position. It is a regular waltz position, except that he stands a little farther to the left side. They stand sort of side by side with their right sides touching, giving each the freedom to walk forward in a small circle, using the light, shuffling glide step, until usually each has turned twice around. Usually a caller gives you a "full swing" to get twice around. But he might give the next call so quickly that you have time to swing around only once. Listen carefully to him, and do what he tells you to do. Then comes, "And promenade home." You swing the girl to your right side, and you promenade back to your home position, still using the light shuffling step.

This is easy. It is called the introduction.

Then the caller goes on with the dance. "First couple out to the couple on the right," and the first couple walks, with that



SQUARE DANCE

Besides the great variety of folk dances that we have inherited from other peoples, we have one that deserves to be called the American folk dance, even though it contains some adaptations of European folk dance patterns. This is the square dance.

HOW THE SQUARE IS FORMED

While you will find variations in our American squares, you soon adopt the commonest form. If you are in New England, for instance, doing a formal quadrille, you will find the second couple opposite the first, and the third and fourth couples opposite each other at the sides of the square. Down in the southern states you might find a dozen or more couples in a "square," but in most of the nation you will find four couples standing in a square, and numbered simply counter-clockwise. That is, the first couple has its back to the side of the hall where the orchestra is playing or the caller is standing. To their right is couple No. 2; opposite the first couple is couple No. 3; and to their left is couple No. 4. The square, on whose four sides they stand, is about ten feet across. After any movement or special figure, each couple moves back (moving always counter-clockwise or to the right) until they stand at "home" or "start-"

After the "Allemande left" (can you find the origin of this term?) usually comes the call, "Right to your partner, and right and left grand!" And every boy takes his partner by the right hand and walks past her. Both the boys and girls start walking at once, the boys around the circle counter-clockwise, and the girls the other way. Each takes the next person by the left hand and walks right on past, and the next by the right and pass on by, and the fourth person by the left, and so on. And then they meet their partners again, and the boy takes his lady by the right hand and turns her so that he can put her on his right and together they start home, while the caller goes on with something like, "Promenadel Promenade back home!" And they all go back home, where they turn and bow, and are ready for the second couple to be called out.

The caller goes right on with the call

*Second couple out to the couple on the right,
And form a star with the right hand cross.
Now back with the left, and don't get lost.
Now swing your opposite with the right,
Now your partner with your left,
And on to the next.*

He times it carefully to the movement, and sends them on to the next two couples, and home again for another *allemande left*, and a *grand right and left*. Then the third couple, and finally the fourth. And everyone will have done his best, and you will have had a gorgeous time. The more you get into the rhythm of the whole thing with your whole body, the more you will enjoy it. This is just a beginning. You will want more and more. And that is the fun!

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same light shuffling step, over to the second couple, facing them. The call goes on, without a stop. "And form a star with the right hand cross." The first couple joins right hands with the second couple, forming a criss-cross of arms, and they take about four steps around. Then comes the call, "Back with the left and don't get lost!" The four dancers immediately let go with the right hands, turn around toward each other, and join left hands in the middle, and start back in the rhythm of the music for four more counts.

"Now swing your opposite with your right." Each gentleman joins his right hand with that of the opposite lady, and walks around her (she at the same time, of course, walks around him), both going in a clockwise direction. Then comes the call, "And now your partner with the left," and he gives his left hand to his partner's left, and turns her around, both going counter-clockwise turn in the middle of the set, and goes on to face the third couple. This turn around is necessary for their perfect timing.

It is very important that your girls be kept always on your right side. And so, as you approach the third couple, make sure she is on your right side. Then when the call comes, "Form a star with the right hand cross," she will be to your right, and behind you as you start this figure. You do the same thing with this couple. It is getting easy now. You know your stuff, and it is great fun to step out with confidence as you swing this couple around.

Allemande Left

Then comes the final call, "Go back home and swing. Everybody swing!" And you take your partner back home now, swinging her vigorously, and see all the other couples swinging too, at their home positions. And if the caller is good, just as you finish swinging her twice, he comes out with, "Allemande left with your left hand," and each man catches the corner girl (the girl on his left), with his left hand, and walks around with her, and back to his home position again.

Stand before a full length mirror and watch yourself as you do these steps. Be sure you are standing as tall as you can. Your head will then be erect with your chin slightly raised. Your shoulders should be level and relaxed with the chest held high and the abdomen kept flat. The hips should be in the normal position for walking, not thrust forward or backward. Your ability to become a good dancer will depend a great deal on your manner of walking. Bad habits in posture and carriage produce poor habits in dancing.

Besides good posture one must acquire balance and smoothness in dancing. These two qualities are obtained by learning to bend the knees the same amount with each step and allowing the weight of the body to remain on one foot until the other foot is in place. This procedure produces a gliding movement with very little up and down movement of the body. The movement should be from the waist down. Exaggerated positions or movements of the shoulders and arms detract from the appearance of dancers.

After you are sure of the rhythm of a certain foxtrot record and you have become aware of your appearance as you walk to the rhythm, try walking with a partner. Face one another and join hands or hold each other's elbows, with your shoulders parallel. Now practice together, keeping time to the music.

Next assume a proper dance position. Instead of standing directly opposite your partner, move slightly to your left so that your feet will move with your partner's without stepping on her feet. Place your arm around your partner with your right hand just below her left shoulder blade. Her left arm should rest on your right arm with her left hand on your right shoulder. Take hold of the hand of her extended right arm with your left hand. In this position you will look over each other's right shoulder. As you step forward with your left foot, your partner steps backward with her right foot. Important points to remember are to keep facing your partner and to hold your arms in such a way that both of you can move freely.

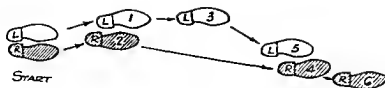


Fig. 1. The Two-Step

done to $4/4$ time music. The following is the boy's part: with the weight on the right leg, place the ball of the left foot down, followed by the heel as the knee is bent. As the weight is transferred to the left leg straighten the knee. Repeat the same for the right foot, transferring the weight back to the right leg. These are the two *slows*. The *quick-quick* steps are taken in succession, left, then right, by putting the ball of the foot down first and then rolling onto the whole foot.

These basic steps are done in closed position. The boy holds the girl's hand waist high with her palm down. The girl's part is the same as the boy's, starting on the right foot. See Figure 2.

The break steps of the jitterbug are those movements that are done close to or away from one's partner. The variety of breaks are numerous and are characterized by a "throwing-out" and a "pulling-to" of the girl by the boy. The simplest break is called the "push or back away." This is done by both dancers stepping back on the second *slow* and together on the *quick-quick*. The lead is given by the boy who pushes the girl back with his right hand. He continues to hold her right hand in his left. The girl's right arm gives slightly but does not completely extend. Other breaks consist of turning the girl under her right arm, both turning away from each other, and so forth.

Tango

One of the dances that comes to us from South America is the tango. Others are the rumba, samba, and mambo. The tango is done to $2/4$ rhythm with a relatively slow tempo. The

The many variations of basic dance steps have made leading and following extremely important. Leading may be done in many ways. It may be done by the chest or body, by the right arm and hand, by the left arm and hand, or by turning the shoulders slightly. The girl should not lean on her partner and not anticipate her partner's lead.

Soon you and your partner will be confident in executing these simple foxtrot steps, and you will want to reverse directions. Later you will want to turn rather than move just forward or backward. When you can turn, you are ready to move any place on the floor in any direction.

The trick in turning is to alternate forward and backward steps on a slight diagonal. Try it first by yourself and then with a partner.

As soon as you can do a simple foxtrot step with a partner, you will want to do it with different partners and to various pieces of music. But don't stop there. Begin learning the basic steps to the two-step, the jitterbug, the tango, the samba, and the rumba.

Two-Step

The two-step is an easy and practical one to learn. It is done to music written in $2/4$ time. The boy's part is as follows: step forward on the left foot, draw the right foot to the left, step forward with the left; repeat, starting forward on the right foot. Thus the pattern is: left, close, left; right, close, right; left, close, left; right, close, right; etc. See Figure 1. The girl's part is the same, starting back with the right foot.

Find a record played in $2/4$ time and try the two-step to it. To get some variation add a turn. Just turn your body in the direction you wish to go as you toe out with either foot. Next try the two-step in open position with the girl on the right, both dancers facing the same direction. Then combine the open and closed positions.

Jitterbug

The basic rhythm of the jitterbug is *slow, slow, quick-quick*

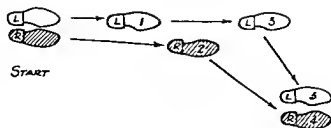


Fig. 3. The Tango—Basic Step

backward on the right foot, closing the left to it, and stepping in place on the right foot to another *quick-quick, slow*. As these steps are taken the body rocks forward or backward, in an opposite direction. To add variety, toe out on the left foot as it moves forward, and toe in on the right foot as it moves backward. This will turn the body in a counter-clockwise direction.

Rumba

The knee-action, hip-swaying dance you have seen on the dance floor is the rumba. Its body movements are unique, but its steps are not. Once you have mastered the rumba motion you can use steps such as the box, cross-over, under-arm turn, and others you have learned while doing the waltz, foxtrot, and tango. The rhythm for the rumba is $4/4$ with a *quick, quick, slow* timing.

Since the rumba movement is the most important part of the dance, we should learn it first. This distinguishing feature of the rumba is based on a delayed transference of weight. Instead of transferring the weight of the body as each step is taken as is done in other dances, in the rumba the weight follows the step. To illustrate, place the left foot slightly in front of the right. The left knee should be bent and the weight of the body supported by the right leg, which is straight. As you stand there, note that the right hip is tilted up. Now transfer the weight to the left leg as the knee is straightened and the right foot moves slightly forward of the left. At this point the left hip



Fig. 2 The Jitterbug

rhythm is a distinctive one and requires the dancers to follow its phrasing carefully, hesitating at times to wait for the start of the next phrase. The tango is danced slowly and deliberately with a poised and supple body, keeping movement in the upper body to a minimum. It has a few basic steps which can be combined to create various figures.

The basic rhythm of the tango is *slow, slow, quick-quick, slow*. Applying this to the basic step, the boy steps forward on his left foot and then on his right foot to the two *slows*; forward on the left foot and diagonally forward on the right foot to the two *quicks*. Close the left foot to the right, keeping the weight on the latter for the last *slow*. See Figure 3. This step can be done in open and closed positions.

Samba

The Samba is a lively, bouncy, and rocking dance. Its rhythm is in $2/4$ time with a syncopated beat. The music has a double rise and fall within a measure. Contrary to the tango and rumba, it is danced with considerable upper body motion. The upper body sways forward, backward, or sideward in opposition to the step. For example, when the step is forward, the upper body is inclined slightly backward. The basic figure is a forward or backward step followed by a side-close. This is done to a *quick-quick, slow* rhythm. See Figure 4.

To do the basic step, step forward on the left foot and close the right foot to the left for the two *quick-quicks*. Step in place on the left foot for a *slow*. Repeat the movement by stepping

1. *Introductions*

- a. A boy is presented to a girl.
- b. A young person is introduced to an older person, mothers, or visitors.
- c. Give names distinctly.
- d. If there is no one to introduce you, give your name first and introduce yourself.

2. *Acknowledgment*

- a. Say "How Do You Do?"; never "Pleased to meet you."
- b. Boys should always shake hands unless situations prove it to be too awkward.
- c. Boys should always stand when being introduced.
- d. Girls should always stand when being introduced to older people or when older women approach.

3. *Asking for a dance*

- a. If the dances have not been arranged by programs, the boy steps up to a girl and says, "May I have this dance?"
- b. The girl does not refuse unless she has the dance with someone else.
- c. When the music stops, the boy thanks the girl and takes her back to where she was previously standing or sitting.
- d. It is impolite to refuse a cut.
- e. A boy should not cut back on a boy who has just cut. He should wait until the girl has been cut in by another boy.

4. *Going to a party*

- a. A boy always removes his hat.
- b. A boy opens doors for his girl and lets her pass through first.
- c. A boy assists a girl with her coat.
- d. Be sure to greet the host, hostess, and parents.
- e. Always see the host and hostess before leaving and tell them how much you enjoyed the evening.
- f. A boy should always be courteous and talk or dance with a girl who is without a partner.
- g. Good sportsmanship is as necessary on the dance floor as it is on the athletic field. It demands that we give everybody a chance, including the poor dancer. It also requires that we share all advantages and disadvantages without grumbling. If we want to be good sports, we must do our share of the work and follow the leadership of the class or party cooperatively.

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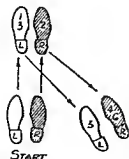


Fig. 4. The Samba

is tilted up. Note how this movement differs from walking. Continue moving forward, then backwards and to each side.

PLANNING A DANCE PARTY

Long before you have mastered all these dances—as you will if you keep practicing the basic steps—you will want to have the fun of dancing with a group. You can either have a dance in your own home, or, better still, ask your teacher of physical education to help you plan a school dance.

If the party is planned at school, committees can be appointed so that everyone will have an opportunity to help. One committee may assume the responsibility for decorating the gymnasium, another committee may select and secure the records for dancing, another committee may prepare the refreshments, and still another be responsible for serving them and cleaning up afterwards. A tea table provides an easy and attractive method for serving refreshments.

The chapter on co-recreational parties will give you some ideas for successful social affairs.

SOCIAL MANNERS FOR DANCES AND PARTIES

Being at ease in a social group depends on knowing how to act properly. If you practice at every opportunity the following simple rules of good manners so that you use them automatically, you won't have to worry about "embarrassing moments."

Just as words must fit together in some orderly fashion, dance too must have design and order and purpose. Creating a dance is fun because you make up the dance by yourself; you can choose any kind of movement and perform it in any manner that best suits your object. This creative aspect makes modern dance differ from most other types of dance.

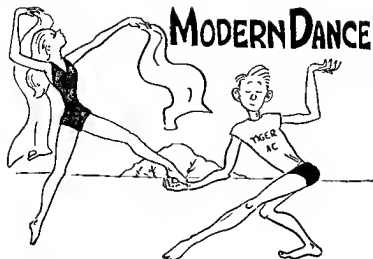
All physical education activities require action—movement that is powerful, purposeful, and controlled. Dance, however, differs from sport in the way movement is used and in its *object*. In tennis, for example, we move to return the ball; the object is to score points and win the game. But in dance, movements are not made to gain an advantage over an opponent; in dance, movement is used to express ideas.

There are no set rules that determine movements in modern dance. You are limited only by what the human body can do, by what movements you can perform, and by the limits of your own imagination. You will discover that the body is able to perform a very great variety of movements, that the same movements take on different qualities when performed in different manners, that movements differ in range or size, and in time from fast to slow. You really will be surprised to discover the great number of movement possibilities—in range, in quality, in style, in spatial and rhythmical relationships.

INCREASED UNDERSTANDING OF THE ARTS

You will also be pleased that your appreciation and understanding of all the arts will be increased. This is true because all the arts follow certain principles of form, pattern, quality, and rhythm. Let us try to classify the arts in a simple way. There are the arts of space (the visual arts); these include architecture, sculpture, and painting. The arts of time (the audible arts) include music, poetry, and drama. Dance usually is thought of as a space-time art since it both exists in space and consumes time.

If we study the arts we find that certain principles appear in each, though with a different emphasis. Each must have unity, a single idea or structure that holds it together. There must



Modern Dance means something more than being dance of our modern period. Social dance is also modern in this sense. By *modern dance* something is meant that is quite different from the three preceding types of dance.

The modern dancer does not go to a book to find the movements and designs that he uses. He is not taught ready-made dances by his teacher, and he does not imitate someone else. Modern dance is much more exciting and alive than this. Instead, the dancer first thinks of the idea that he wants to express. He experiments with movements of his own; he chooses those which appeal to him and which best fit his idea. Then he makes up, or creates, his own dance.

MODERN DANCE IS COMMUNICATION

So we see that modern dance is one way of communicating an idea. When we wish to express a thought in words, we deliberately choose the words and make our sentences as clear as possible to the listener. In a like manner the dancer uses purposeful movement, movements that he has intentionally chosen to express his idea.

will not result in a reasonable, understandable sentence. Therefore, in your dance class you will learn about some of the simple compositional forms.

The separate parts of a composition are indicated by letters. The first movement-idea may be represented by the letter "A." A different theme is given the letter "B." If the first idea should then be repeated, you would have an example of an ABA form. This particular form is used often in the organization of a dance. The "A" theme is the central idea that for clearness and unity is repeated after the contrasting or developmental idea "B" has been presented.

Another compositional form that you may use is a round, or Canon form. A song such as "Three Blind Mice" is a simple round. A theme, or idea, is repeated exactly by several groups. A dance may be developed in the same way; different dancers begin at definite and specified times and repeat exactly the movement-ideas which have just been presented by other dancers. The special form through which you organize your dance will depend, of course, upon your own movement-idea, its possibilities, and your purposes.

After you have composed a dance study, there are several questions that you and your classmates may ask, and the answers may help make the dance even better. Did the title of the dance attract interest? Could the idea be "put across" in movement? Was it performed clearly? Did it have form—was it arranged in a pleasing manner and did it develop to a climax? What about the design, and the use of space? And finally, was the study fun to watch and fun to dance?

So what will you do in modern dance class? You will learn how to use your body so that you can control it well. You may learn to select and organize material in such a way that ideas and feelings can be communicated through movement. Your interest in rhythm and design will be increased. You will find that modern dance is experimental, and that you will have a chance to express and develop your own ideas. And you will find that the discovery of movement developed into dance is an exciting experience, full of fun.

be some *variety* and *contrast*, however, to add interest and meaning. These parts must be bridged together by a logical *transition*. The whole thing must be tied together in a logical order, or *sequence*; there must be *proportion*, and *balance*, and *harmony*, and *repetition* in the arrangement of the parts so that a *conclusion* may be made, with a *climax* or focus on the key idea or theme. You will find these principles over and over again, and an understanding of them will add to your enjoyment of all of the arts.

WHAT WILL YOU DO IN MODERN DANCE CLASS?

Modern dance classes usually start with warm-up activities. These include movements such as "stretches" and "bounces" and "swings." Some of these are done in a standing position, some moving from place to place, while others are performed on the floor. They are done to develop flexibility, and balance, and coordination. Dancers try to do everything with good body mechanics, with much control, and in the best possible style.

You will no doubt compose some simple dances. What will you dance about? What will be the theme or idea of your dance? You can dance about anything that you would like to communicate. Perhaps you have been amused at things you have seen occur at a "Bargain Counter;" perhaps you would like to comment on the routine things that are repeated over and over at school, "Ditto" or "School Daze." You may compose a "Celebration" after the fall sports season, or give your impression of "Graduation Day." There are many current topics in any school which can form the basis for a dance. The important thing is to start with an idea. This theme is then developed into some compositional form.

In your dance class you will learn that in order to communicate an idea, it is necessary to arrange movement into patterns in some orderly fashion. The idea must be performed clearly so that it will be understood. When contrasting ideas are brought in, they must be developments of the main point that you are trying to express. A dance is not just a combination of movements strung together; a combination of jumbled words

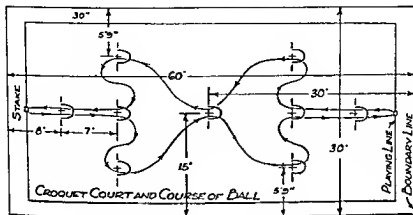
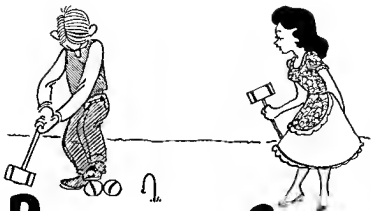


Fig 1. Croquet Court and Course of Ball

with the balls. The two stakes are painted with rings of all these colors arranged in the same order. Players take turns in the order of their colors on the stakes. Colors may be decided upon by free choice or by some method like choosing straws. Once the order of play is started, it is continued throughout the game. The game is played by 2 to 8 persons. When played by 4, 6, or 8 persons, two sides are chosen.

The court for playing croquet can be adapted to the space you have available. Figure 1 shows the regulation court and the course of the ball.

Each person begins the game by putting his ball a mallet's distance from the starting stake and opposite the center of the first arch. If a player, after hitting the ball, drives his ball through an arch, hits a ball, or the turning stake, he may continue until he fails to do any of these. Driving the ball through the two arches at either end entitles you to two additional stokes, but if through any other two arches, it gives you a mallet's length ahead in any direction plus one stroke. If you do not use the two strokes before hitting another ball, going through an arch, or hitting the turning post, they are cancelled. The course of the ball continues as long as you make a point. The winner of the game is the first one to make the complete circuit and hit the starting stake.



RECREATIONAL GAMES

I. CROQUET

Ever since the 13th century when the French originated the game of *Paille-Maille*, children and adults have had fun hitting wooden balls through hoops and at stakes. Croquet, as it is now called, is an excellent family and backyard game. Combining elements of polo, golf, and billiards, the game becomes more enjoyable as you gain greater skill with the mallet and ball.

Before starting to play, you should learn how to stand and how to hit the ball. The most widely used stance is that with the feet slightly apart and the knees slightly bent. You can stand at right angles to the line of aim and swing with a side stroke with one or both hands. For a front stroke you face the line of aim and hold the mallet outside either the right or left foot. The front stroke can also be performed by swinging the mallet between the feet. No matter what stroke you use, you should hit the ball, not push it, after aiming. Your eyes should be fixed on the ball as it is being hit.

THE GAME

Croquet sets usually contain eight balls marked by a different colored ring, and eight mallets similarly marked to correspond

CROQUET TERMS

Roquet. A ball driven by a mallet coming in contact with another ball.

Croquet. A ball having roqueted another is placed in contact with the latter. The player then sets foot upon his own ball, and with a blow of the mallet, drives the roqueted ball in any direction.

Roquet-Croquet. Same as croquet, except that the ball is not held under the feet.

Ricochet. A ball making roquet on two or more balls by the same blow of the mallet.

Rover. A ball that has been through all of the arches and has not hit the starting stake, but roves over the field, helping his partner and driving back his opponents.

Boundary. A rectangle formed by an imaginary line extending around the play area, a mallet's length outward from the outer edge of each side wicket and the post at each end.

Mallet's length. The full length of the mallet including head and handle.

Mallet's distance. The length of the head of the mallet.

II. HORSESHOE PITCHING

In the game of horseshoes, each player tries to pitch the shoe to make a ringer or to place it near the stake. In singles (2 players) each player tosses two shoes consecutively. In doubles (4 players) two opponents stand at one stake while their partners stand at the other stake. The first two players pitch two shoes consecutively and count the score. Then the other two pitch two shoes consecutively and count the score.

There are 40 feet between the two stakes when men and boys are pitching, but the pitching distance for girls and women is 30 or 40 feet. A game consists of 50 points. In tournament play, only shoes within 6 inches of the stake score. But in friendly matches, the 6-inch rule is omitted.

SOME OTHER RULES

1. If a player plays out of turn, he loses his next turn.
2. If a player plays with the wrong ball, he must replace the ball and lose his turn.
3. If a ball roquets (for terms, see below) another, and with the same stroke makes its arch, the player may croquet the roqueted ball, or refuse to do so, and again roquet it before making the croquet or proceed to make another arch.
4. No player can croquet the same ball twice in the same turn without first passing through an arch or hitting the turning stake.
5. No ball can croquet or be croqueted until it passes through the first arch.
6. A ball having roqueted another may either croquet, roquet-croquet, or continue its course.
7. If a roqueting and croqueting ball both pass through an arch with the same stroke, only one extra stroke is conferred.
8. When a ball is driven from the croquet grounds, it must be put on the boundary line where it went off.
9. A ball has not passed the arch if the handle of the mallet touches the ball when laid across the arch on the side from which the ball came.
10. If a player wholly misses striking the ball with his mallet, he may have a second turn.
11. If a striking ball touches one or more balls, it may croquet as many balls as it strikes; but the player has only one additional stroke after he has croqueted the lot, and not one for each ball struck.
12. When the striking ball has hit another ball, the striking ball may be placed anywhere within mallet's distance of the ball hit for the next stroke.
13. After hitting the turning stake, the ball may be:
 - a. picked up and placed a mallet's distance from the stake and opposite the center of the next arch to be passed; or
 - b. played directly from where it lies after touching or rebounding from the stake.

III. DECK TENNIS

You may never have been on the deck of a ship, yet you can play deck tennis. All you need is a rubber ring, a net or rope, an open space, and an opponent. Then throw the ring back and forth across the net until your opponent lets it hit the ground. The game has started, and you have made a point.

To start a singles game, you must stand behind the back or the base line. Then with an underhand motion, serve or throw the ring across the net so that it stays inside the boundary lines but does not fall in the neutral area. The receiver, who stands behind his base line until the ring leaves your hand, runs up and tries to catch the ring and return it where you cannot reach it. You both continue catching and throwing the ring until one of you makes a fault.

As in volleyball, only the server can score. An incorrect serve or return is a fault. If the receiver commits the fault, the server scores a point. But if the server commits a fault, he loses his serve. The following are a list of faults: 1) failing to throw the ring with an underhand motion so that it rises from your hand, 2) letting the ring touch your wrist or any part of your body, 3) changing the ring from one hand to another before throwing it, 4) failing to catch the ring, 5) taking more than two steps with the ring in your hand, 6) throwing or serving the ring so that it lands in the neutral area, 7) throwing the ring so that it lands out of bounds or in the net, 8) stepping on or over the base line before serving the ring.

A served ring which hits the net and goes into the court beyond the neutral area is a "let" and should be re-served. With that exception, you are allowed only one attempt to make a good service. If that fails, your opponent serves. If you make a point, you continue serving. You win a game when you make 15 points. If the score ties at 14 all, you must win 2 more points than your opponent to win the game.

In the doubles game four people play. The server starts behind the right half of his service court and serves diagonally to an opponent behind the opposite right court. Both the server

Each time four shoes are pitched, it is an inning. Only one person can score each inning. You score as follows: 1) a ringer scores 3 points, 2) two ringers score 6 points, 3) a ringer and the closest shoe score 4 points, 4) the closest shoe scores 1 point, 5) two shoes closer than your opponent's score 2 points, 6) all shoes equal distance from the stake are tied and no points are scored, 7) if you have two ringers and your opponent has one, you get three points.

PITCHING

To pitch a shoe you should stand to the left of the stake if you are right handed. Then grip the shoe between your thumb and fingers with the calks down. Swing your right arm backward and then forward similar to an underhand pitch in softball. You should step forward on your left foot as you pitch the shoe and follow through with your palm up. You should pitch the shoe so that it lands with its open side toward the stake. Sight through the shoe and release it at the point where you sight the stake.

To start, you may hold the shoe with the open end pointing in any direction, and pitch so that the shoe turns as you throw it. The amount you make the shoe turn will determine in what position you hold the shoe to start. If you are a right-handed player and throw the shoe so that it turns once and a half, you should hold the shoe with the open end toward you. If you pitch so that the shoe turns once and a quarter, you should hold it with the open end pointing to the left. If you want the shoe to make one complete turn, hold it with the open end away from you. Whichever way you choose, raise your shoe, sight through the center of it, and then pitch it. Decide on one of the ways to deliver the shoe and use that way for every pitch.

You can pitch horseshoes on picnics, at school, or at home. Girls and boys can play together. Children and adults can compete; just change the pitching distance to make it even. So get two iron stakes and four horseshoes and start to play.

fly parallel to the ground. To catch it, turn your palm upward and close your hand around the ring as it touches your fingers. "Give" by bending your elbow as you catch it.

IV. SHUFFLEBOARD

Have you watched people try to push wooden discs into a scoring area with a long-handled stick? The game they are playing is called shuffleboard.

The game of shuffleboard can be a singles game for two people or a doubles game for four people. With two people playing, you stand side by side at one end of the court and push your discs to the opposite end of the court. Then, you walk to the opposite side and shoot the discs back again, counting the score after both of you have finished shooting at one end. If four people play, you stand beside one of your opponents and opposite your partner, as in horseshoes. You and your opponent shoot your discs alternately the length of the court to the opposite scoring area. Then, after counting your score, your partner and his opponent shoot the discs back again.

The court is long and narrow. At each end is a space in which the players must stand while shooting. Marked on the court are two triangle scoring areas marked off with numbers painted on them. Across the base of each triangle is an area called the 10-off area. There is a neutral area 12 feet in the center of the court marked off by two lines called dead lines (Fig. 3).

To decide who starts the game, you and your opponent each push one disc to the dead line farthest from you. Whoever pushes the disc closest to the dead line chooses the color disc he wants to play with during the game.

Now you can start the game. Put all of the red discs on the right side of the 10-off area and the black discs on the left side of the 10-off area. Red always takes the first turn from the right side of the top court. A right-handed player who is shooting the red discs holds his cue with his right hand and places it in contact with the disc. He then steps forward with his left foot and pushes the disc to the opposite scoring area. Then, the opponent pushes a black disc towards the scoring area. You try to score or

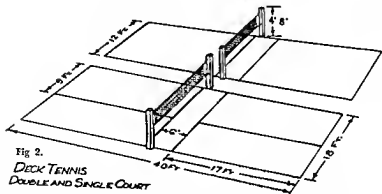


Fig 2.

DECK TENNIS DOUBLE AND SINGLE COURT

and receiver may cross the base line as soon as the ring is thrown. If the server serves from the right court and makes a point, he serves the next ring from behind the left court to the other opponent. Thus the server serves the ring alternately to each opponent. After the ring is returned, either opponent may play it.

THROWING AND CATCHING

You will have an easier time throwing the ring than you will have catching it. Start by holding the ring between your thumb and fingers.

If you are right handed, step forward with your left foot as you swing the ring forward like an underhand pitch in softball. The ring will fly in the direction your hand releases it. How high or low the ring flies will depend upon the height of your hand when you release the ring. To catch this ring which flies perpendicular to the ground, reach out your hand. Then as the ring touches the base of your fingers, close your hand and bend your elbow. This makes you "give" or relax as you catch the ring.

The next throw to learn is a cross-body throw. Hold the ring so that your palm is upright and your thumb is on top of the ring. Bring your hand from across the body near your waist to above your shoulder. Release the ring with your palm up. To control this throw, stop the swing of your hand when your arm lifts to the point where you want the ring to go. The ring will

FOULS AND PENALTIES

In addition to making or losing points according to where your disc lands, there are fouls which subtract points from your score. The following is a list of fouls and their penalties:

1. Shooting a disc when it is outside your half of the 10-off area. Penalty 5 off.
2. Shooting a disc which is touching the front or back of the 10-off area. Penalty 5 off.
3. Shooting a disc which is touching the side or triangle of the 10-off area. Penalty 10 off and the offender's disc is removed and the opponent is credited with any disc displaced.
4. Player stepping on or over the base line of the court during shooting. Penalty 5 off.
5. Player interfering with the opponent while he is executing a shot. Penalty 5 off.

Dead discs must be removed from play. A disc is dead when it touches anything other than a live disc, or when it stops in the area between the farther dead line and the starting area, or when it lands more than half way over the side court.

In playing shuffleboard it is good technique to hold the cue in one hand with the cue head resting against the disc. Then you bend to sight for your aim; and when you shoot, take a long step forward and follow through with your arm and shoulder.

V. TABLE TENNIS

Table tennis or ping pong? Both are the names for a game that is lots of fun and requires considerable skill.

The game is a little like lawn tennis, but it is played with rubber or sandpaper-covered rackets and a small celluloid ball. Across the table (9 feet long and 5 feet wide) a 6-inch net is stretched to make two sides or courts. Each court is again divided in half by a line drawn down the center of the table. This line makes the right and left service courts for doubles (4 people).

Begin by grasping the paddle as though you were shaking hands with it, but let your index finger straighten across the bottom of the blade just above the handle. Using this tennis

Remember this peculiarity of table tennis—to make a legal serve, you must hit the ball so that it bounces once on your side of the table before it crosses the net and bounces on your opponent's court. But in returning the ball back and forth, you must strike it, after it bounces once on your court, in such a way that it immediately flies across the net to bounce on your opponent's court.

SCORING

To win a game of table tennis, you must win 21 points unless both sides have a score of 20-20. After that, you must get two points more than your opponent has to win the game.

Each person who serves the ball serves until five points are scored. One side can win all five points or the points can be split between the two sides. The service alternates between the opponents every five points unless the score reaches 20-20. Then the service changes every point until the game is won.

Below are some other rules you should know before you play the game.

1. To serve, your racket must hit the ball while your hand and racket are behind the end of the table.
2. To serve, you must stand between the imaginary continuation of the sides of the table.
3. You must return the ball before it bounces twice on your side of the table.
4. You may not jar or move the table during play.
5. You may not lean your free hand on the table.

Committing one of the above faults gives the opponent one point. A served ball which hits the net but goes across and is otherwise good is called a "let" and must be re-served.

DOUBLES

There are special rules that apply only in doubles. These are as follows: 1) The server always serves from the right half of his court. 2) The receiver is always the opponent standing diagonally opposite the server. 3) After the receiver returns the ball, the server's partner must hit it. Then the receiver's partner gets

grip, you hit the ball so that it flies across the net and bounces on your opponent's side of the table. You and your opponent continue to hit the ball back and forth until one of you knocks the ball into the net, or off the table, or misses hitting it before it takes a second bounce. When one of you makes one of these errors, the opponent wins a point.

THE STROKES

The easiest stroke is the push stroke or half volley. To do this, meet the ball with a gentle forward pushing stroke of the racket while the back of your hand is toward the net. You must hit the ball on its first bounce. It is illegal to volley or hit the ball on the fly.

The topspin drive is the basis of your attack. Just as the ball bounces, strike it with a forward and upward swing of the racket and arm. For a forearm drive, you should turn your body so that your left side is slightly toward the net and hit the ball while your palm is almost facing the net. For a backhand drive, turn your right side toward the net and hit the ball with the racket so that the back of your hand is toward the net.

The chop is the basic defensive stroke. Start with your paddle above the ball and stroke down as though you were chopping wood. Hit the ball and let your paddle and arm follow through toward the net. Turn your side to the net in chopping the ball just as you do for the drives.

THE SERVE

Now you are ready to learn the serve. You may use either a forearm or a backhand stroke in the serve. Toss the ball with your left hand. Then with the racket in the right hand, hit the ball with a slight downward motion so that it strikes your own side of the table and then rebounds across the net and bounces on your opponent's court. In singles (two players) the serve may hit anywhere on your side of the table and then hit anywhere on your opponent's side of the table. But in doubles, you must serve so that the ball strikes the right half of your side of the table, bounces diagonally across the net, and hits the right side of your opponent's court.

CO-RECREATIONAL PARTIES



There are two types of parties. One type is informal, and leaves the selection of activities to the group; the other is organized activity around a theme that gives the party unity.

There is less wear and tear on you and the rest of the group if the *planning is done well in advance.*

GENERAL COMMITTEE

The first step in organizing a party is to appoint a chairman and a committee of five or six. Each member of the committee is responsible for one phase of the party, such as, invitations, decorations, refreshments, and so on, and should have a group of three, four, or five others to help.

But first of all, the general committee must decide on these four main things:

1. The General Plan

WHO? Who will be invited? How many people will come? What will be the proportions of boys to girls? What are the age levels, the likes and dislikes, the abilities, and limitations of the guests?

WHERE? Where will the party be held? What facilities will be available?

WHEN? Day? Time? Month? Season?

the next hit. This order continues as the players take their turn hitting the ball. Let's see if that is clear. First the server, then the receiver, then the server's partner, and then the receiver's partner hit the ball in that order until a point is won.

At the end of 5 points in doubles, the player who was receiving becomes the server, and the partner of the previous server becomes the receiver. When A and B are playing against C and D, the serving order is as follows. A serves five times to C; C then serves five times to B; B then serves to D, and then D serves to A. Each time a server finishes the fifth point, he changes places at the table with his partner. This keeps the serving order the same throughout the game. The other rules for doubles are the same as those for singles.

VI. PADDLE TENNIS

Played with a wooden paddle, usually 5-ply hardwood, and a light sponge-rubber ball approximately $2\frac{5}{8}$ inches in diameter, paddle tennis has grown in popularity since its invention about four decades ago by Frank Peer Beel.

The playing rules and scoring for paddle tennis are the same as those for lawn tennis for both the junior and senior game except in the latter, only one serve is allowed, and if it is a fault, the server loses the point. After service the entire doubles court is used for singles play.

The basic skills for paddle tennis are the same as those for table tennis and lawn tennis.

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4. Chaperones

If your party is sponsored by an organization, good manners requires the presence of *chaperones*. The attitude that you have about the presence of adults at your parties is important.

When you ask adults to watch the entrance for invited and uninvited guests or to cope with rowdies, you are inviting them to take care of an unpleasant job and to act as "policemen." But if you believe that they are present to enjoy the activities with you and to do their share in making the party a success, you will discover that adults are young in heart too.

INVITATIONS

Invitations vary from formal engraved cards sent through the mail, to casual invitations by telephone. A good party starts with this committee's work. They can arouse the curiosity of the guests, and set the theme. An invitation may be extended to a group. It may be in the form of a proclamation or a skit before the assembled group. Announcements may be tacked on the sides of buildings and dead trees à la Robin Hood. Sometimes on a retreat or at camp, clues or brief skits are presented for several days leading up to a specific invitation, and this really increases suspense. P.S. Don't forget to include the R.S.V.P.

PUBLICITY

Some parties can function adequately without this committee, that is, a private party. If the party is sponsored by a group and the attendance is indefinite, a publicity committee is a MUST. The efforts of other committees toward a well-planned party are dependent upon the effectiveness of this committee.

Always use several types of publicity to insure the success of a party. If one kind fails—for example, newspaper stories—the other kinds will still insure a good attendance.

DECORATIONS

The place and type of party will decide the amount and kind of decorations needed. If the party is out of doors or in a barn the decorations are already present. Decorations are for atmosphere only—and may be "suggestive" rather than worked out in detail.

- WHY?** What is the purpose of the party—to have fun, to raise money?
- WHAT?** What kind of a program is desired—a picnic, a dance, games?
- How?** Who will help? Who will lead the games? Who will decorate? Who will take care of the refreshments?

2. The Theme

Select a clever *theme* for the party to make it easy for each committee to carry out its part. An original theme or new angle to a traditional theme can spark the whole party. For example, make the dance bids for a Spring Fever Dance in the shape of a miniature phonograph record album with the theme printed on the cover and the miniature record plates used for the date, the program of dances, and the chaperones. If each committee follows the theme, the whole party will blend together. A *theme* helps to make your party distinctive.

Suggested Themes

"Coketail" Party	Drums Along the	January Thaw
Hobo Convention	Mohawk	Cupid's Heyday
Mail Order Party	Ship Ahoy!	Santa Claus's Work-
Trip Around the	Kodak Party	shop
World	Mardi Gras	Christmas in India
A Globe Trotters	Now and Then	Hallowe'en Party
Party	Down on the Bar-X	
Rodeo Party	Special Days or	
	Months	

3. Expenditures

A party can be produced at little or no cost at all if the chairmen and committee members use their ingenuity. If you are planning to spend any money for the party, make a *BUDGET* specifying the amount to be spent by the various committees. If an admission is charged, the budget should be based upon a conservative estimate to anticipate the possibility of poor attendance. In all cases the expenditures should be within the amount allotted for the party.

c. Suggestions appropriate to both types

- 1) Activity other than dancing is a refreshing change.
- 2) If space permits in the dancing room or a nearby room, set up table games. The early arrivals and those desiring an occasional rest may prefer to play them.
- 3) Include some games for everyone during the dance. Examples are: Musical Knees (the girl sits on the boy's knee instead of a chair), and Dress for the Ball (small groups dress a boy in newspapers for a style show).
- 4) Include a few stunts to break the routine and add zest to the dance, an example being Where's My Hat?
- 5) Refreshments (see below).

3. Social recreation parties

These may include games (active and inactive), dancing, rhythmical games, singing, and so on. Some may be organized for a special purpose, such as mixers or ice breakers, unifying a group, providing small group activity within a large group, and surprises—a stunt, prize, entertainment.

4. Sports and tournaments

Mixed doubles in badminton, ping pong, tennis, bowling, horseshoes, shuffleboard, deck tennis, croquet, quoits, and mixed teams in volleyball, softball. Swimming, roller skating, ice skating, skiing, hiking, sailing, and horseback riding.

5. Special Events

Beach Party	Treasure Hunt
Boat Trip	Parties with a special meal
Camp Fire Program	Banquets
Circus	Barbeque
County Fair	Box Social
Family Night	Clam Bake
Hobby Fair	Cook Out
Masquerade	Dinner Dance
Minstrel Show	Tea
Quiz Program	Tea Dance
Scavenger Hunt	Tennis Breakfast

All Night Party (Parents, communities, and teen-agers plan an all night party—usually for graduating seniors).

The decoration committee must do three things. 1. Carry out the theme. 2. Limit the decorations for large ballrooms or gymnasiums to the entrance and stage, space for musicians, corner, or an end of the room. It takes a great many decorations to fill effectively a gymnasium. The day of the false ceiling of crepe paper ribbons is gone. 3. Avoid "over decorating" small rooms.

PROGRAM

The program committee determines the details of the program desired by the general committee and assumes the leadership for the programs. The who, when, where, why and what as decided by the general committee guides their efforts. This committee plans the games, skits, dances, songs, and so forth.

Parties for Co-recreational Groups

1. Parties involving card games and table games
 - a. Bridge, pinochle, checkers, chinese checkers, chess, darts, pool, quoits, shuffleboard, scrabble, ping pong, canasta.
 - b. Games are set up in a room or several rooms.
 - c. People select the games they desire to play.
 - d. People progress from game to game, individually or in groups.
 - e. A point system and prizes make it more exciting.
2. Dances
 - a. Folk, square, or mixers
 - 1) Circle or line dances without partners;
 - 2) Several mixer dances;
 - 3) Repeat the following combination for the rest of the program: couple dance, mixer, couple dance, two square dances (omit square dances if desired);
 - 4) Conclude with a dance that unifies the group or a good night waltz.
 - b. Social dance
 - 1) Two or three dances;
 - 2) Several mixers to unify the group;
 - 3) Repeat the following combination for the rest of the program: three dances and a mixer;
 - 4) Conclude with a goodnight waltz.

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ment committees. But it should be clearly understood who is delegated with this responsibility. Although a special committee can do the job, the general committee that has had the fun of giving a highly-successful party can easily follow through on this job. If four or five remain afterwards, there will be other volunteers to help at the last minute. Everyone does not see the jobs that need to be done. Assign the jobs as the group gathers.

THANK-YOU'S

The chairmen of all committees should thank all the committee members for their help. For big, formal parties, written notes of appreciation are in order.

EVALUATION

The general committee should meet a few days after the party to evaluate it in terms of its success and of experience to improve future parties. Do not dwell on the unsuccessful things, or the meeting will turn into a gripe session. If the party is sponsored by an organization, a record of the evaluation should be left for the use of others. Each person that helps with the party and shares in the evaluation gains insight and useful ideas for other parties.

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Leadership for the Program

Many people may help plan the activities and lead them, but in most cases there should be a master of ceremonies who will help tie the whole party together. If the party is a long one, perhaps two people—a boy and a girl—could share this job. The M.C. should have a strong voice, a pleasing personality, and sensitivity to the wishes of the group. When he is not actively leading or before the group, he should be looking after details like the ventilation of the room, seeing that there are chairs for everyone, and being ready to squelch the would-be-rowdy. A good M.C. does not seek the limelight; it will be on him when he is doing the things he should do.

Additional leaders, who lead many of the activities themselves, assist the M.C. with the program. If each leader has some helpers, the games move faster and changes to new games are made more easily.

REFRESHMENTS

Parties can exist without refreshments, but so can a chocolate sundae exist without whip cream. Refreshments should be simple and attractive, and can easily be distinctive. If the group is not too large, it is fun for the guests to help prepare them—for example, making ice cream in an old-fashioned ice cream freezer. The selection and serving of refreshments can also follow the theme.

A good method of securing food is to ask your parents to help prepare the food. Parents like to feel a part of your activities, and sending a batch of cookies or coming over to your party to bake hot gingerbread for the gang is one way that you can share your fun with them.

Another method is to have a pre-party for the refreshment committee to prepare the food together.

CLEAN-UP

Cleaning up after a party doesn't just happen! A good party chairman should be one of the most active members of the clean-up committee as well as members of the decorating and refresh-



Don Faria, Washington State College Athletic News



Interscholastic athletics and intramural sports are both important for a sound program of athletics, and the former should not eclipse the latter.

How many different intramural activities do you have each year in your school? Check the table on p. 578.

Do you know why interscholastics for girls are so different from interscholastics for boys? See Chapter 30



Courtesy, Public Schools, Madison, Wisconsin

siderations should be given to the interests and needs of your fellow students, the location of your school, the availability of facilities and equipment, and the season of the year.

It might be interesting to check in Table 1 the activities your school provides in the intramural program. After you have done so, you may want to talk it over with other students in your school and with your teachers, and find out how to enlarge your present program and make it available to more students in your school.

SPORTS FOR ALL

"An Activity for Everyone, and Everyone in an Activity" should be the slogan for Intramural Sports. This can be achieved by including not only highly-organized sports such as basketball, soccer, volleyball, and softball, but also less highly-organized games, events, and even non-competitive club activities. Expert performance is not an important requirement, but skill, good techniques, and understanding of basic rules add much to the joy of playing. The spirit of play and the desire to participate are the most important. For this reason emphasis should be placed on widespread participation rather than on competition for only the few highly-skilled players.

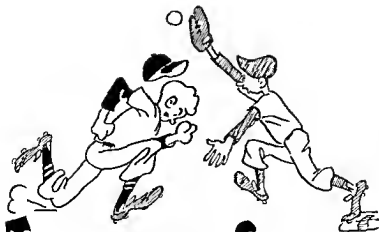
Table 1 includes a list of sports activities which can be enjoyed by mixed groups. For many of these activities the rules and techniques are the same for boys and girls. In activities such as archery, badminton, bowling, golf, and tennis boys and girls can participate together without modifying the rules.

Softball rules are the same for boys and girls, but since boys can throw harder than girls, it works well to have pitchers rotate so that a boy pitches to a boy and a girl pitches to a girl.

Not all activities are suitable for co-recreational participation. Sports that are combative or involve body contact are not suitable for mixed play.

INTRAMURAL SPORTS COUNCIL AND OFFICIALS CLUB

Student leaders are needed in most intramural programs, if they are to function efficiently. The leaders develop responsibility by giving service and helping others.



INTRAMURAL SPORTS

Intramural activities are for *every* boy and girl in the school. Of course, the student who is on the basketball varsity isn't going to be in basketball intramurals too. But he can be in table tennis, golf, or volleyball intramurals during other seasons of the year.

Intramural activities are planned for those who like to play, regardless of skill or previous experience in a sport. Usually though, you don't want to play on a team or represent a home room or class unless you feel that you are fairly skilled at that activity. Usually also, you learn the fundamental skills and basic rules in your physical education class periods.

In schools where facilities are limited, perhaps intramurals can not be offered in every single activity that the teacher presents in physical education class. But certain activities can be selected one year and different ones the next, with the ever-popular basketball, softball, and volleyball intramurals probably being offered every year. In this way a wide variety can be made possible so that during your six years in junior and senior high school you can find several intramural activities in which to take part.

Planning the program of activities should be a cooperative venture involving faculty, students, and whenever possible, community groups, especially the Parent-Teachers Association. Con-

Probably the best way to assure democratic procedures is to form an intramural sports council. The members of the council might consist of an elected representative from each class, the managers of each sport, representatives from the officials club, a faculty member to serve as coordinator, and the head of the physical education department.

The functions of this council should include planning the program, scheduling the activities, setting up the tournaments, putting the plans into action, and authorizing any awards which are to be given. Other functions of the council would be to draw up and enforce regulations concerning eligibility, forfeits, and so forth and to plan a program of publicity.

How can you keep your intramural program vitally interesting? How can you vary special events as well as the regular program enough to capture any possible waning interest? The suggestions given here may give you some ideas as to what you can propose for your school.

1. Have some special events.
2. Offer different kinds of tournaments rather than sticking to the same routine form for every activity every year.
3. Try a co-recreational tournament.
4. Open House for intramurals can be scheduled for an evening when parents and other guests may be asked to come to observe the activities.

TOURNAMENTS

The types of tournaments most generally used are the elimination, the consolation, the double elimination, round robin, and the ladder, and other challenge-type tournaments. In setting up tournament play you will need to know something about methods of eliminating contestants.

Byes

An elimination tournament can be set up with any number of players or teams. In order to have a single winner the final round must have only two contestants or teams. In each preceding round of play one half of the total group is eliminated. This

TABLE I
INTRAMURAL SPORTS ACTIVITIES

	B O Y S			G I R L S			C O - R E C R E A T I O N A L		
	TEAM	INDIVIDUAL	TEAM	INDIVIDUAL	TEAM	INDIVIDUAL	TEAM	INDIVIDUAL	
F	Cross country	Archery	Field ball	Archery	Golf	Archery	Golf	Archery	
A	Soccer	Bicycling	Field hockey	Bicycling	Kickball	Bicycling	Kickball	Bicycling	
L	Speedball	Golf	Kickball	Golf	Soccer	Golf	Modified games	Golf	
L	Tennis	Hiking	Soccer	Hiking	Speedball	Hiking	Relays	Hiking	
	Touch football	Horseshoes	Speedball	Horseshoes	Tennis	Horseshoes	Tennis	Horseshoes	
		Paddle tennis	Tennis	Paddle tennis		Paddle tennis		Paddle tennis	
		Quoits		Quoits		Quoits		Quoits	
		Tennis		Tennis		Tennis		Tennis	
W	Basketball	Aerial darts	Basketball	Aerial darts		Aerial darts	Modified games	Aerial darts	
I	Gymnastics	Badminton	Skating	Badminton		Badminton	Skating	Badminton	
N	Ice hockey	Basket-shooting	Swimming	Basket-shooting		Basket-shooting	Swimming	Basket-shooting	
T	Skating	Bowling	Tumbling	Bowling		Bowling	Tumbling	Bowling	
E	Swimming	Deck tennis	Water games	Deck tennis		Deck tennis	Water games	Deck tennis	
R	Tumbling	Fencing	Volleyball	Fencing		Fencing		Fencing	
	Water Games	Ice skating		Ice skating		Ice skating		Ice skating	
	Volleyball	Rifle		Rifle		Rifle		Rifle	
		Shuffleboard		Shuffleboard		Shuffleboard		Shuffleboard	
		Table tennis		Table tennis		Table tennis		Table tennis	
		Wrestling							
S	Baseball	Archery	Golf	Archery	Golf	Archery	Golf	Archery	
P	Golf	Bait-casting	Kickball	Bait-casting		Bait-casting	Kickball	Bait-casting	
R	Lacrosse	Canoeing	Lacrosse	Canoeing		Canoeing	Modified games	Canoeing	
I	Softball	Fly-casting	Track	Fly-casting		Fly-casting	Relays	Fly-casting	
N	Tennis	Golf	Relays	Golf		Golf	Softball	Golf	
G	Track	Horseshoes	Softball	Horseshoes		Horseshoes	Tennis	Horseshoes	
		Paddle tennis	Tennis	Paddle tennis		Paddle tennis		Paddle tennis	
		Quoits		Quoits		Quoits		Quoits	
		Roller skating		Roller skating		Roller skating		Roller skating	
		Sailing		Sailing		Sailing		Sailing	
		Tennis		Tennis		Tennis		Tennis	

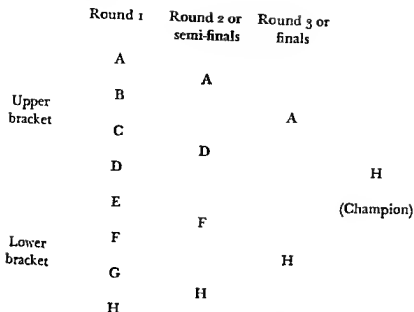


Fig. 1. Single elimination with eight entries

various flights can then play each other. This arrangement by flight also provides an opportunity to play on an ability basis. The winner without further play establishes himself as the champion of a particular flight, such as the novice, intermediate, or expert flight.

Single Elimination

The following illustration (Fig. 1) is an example of single elimination play in a tournament made up of eight entries: A, B, C, D, E, F, G and H, in which A was seeded number one and H was seeded number two.

In the next illustration (Fig. 2) we have an example of the same type of play involving five entries: A, B, C, D, and E in which A was seeded number one and E number two.

Three byes and entries A and E were seeded and given byes in the first round.

As you see, the winners advance to the next round, and the losers are eliminated from play. This process continues until

means there must be four in the semi-finals, eight in quarter-finals, sixteen before that, then thirty-two, and so on.

When the number of contestants is not a perfect power of 2, the number eliminated in the first round must be such that a perfect power of two remains for the second round of play. This means all players will not participate in the first round. Those advancing to the second round automatically without playing are said to have received *byes*.

To determine the number of byes for the first round apply the formula, $2^n - N = X$, where N equals the number of teams or contestants and 2^n is the next perfect power of two greater than N . For example, with 12 entries you would have $16 - 12$ or 4 byes.

One half of the byes should be placed in the upper half of the bracket and the other half in the lower.

Lot and Seeding

Entries given *byes* are selected by "lot" or "seeding." If they are to be chosen by drawing lots, place the numbers representing the entries in a container and have them drawn by a person in such a manner that the entries drawn are by pure chance.

The "seeded" entries are considered to be the best teams or individuals and are "seeded" or intentionally placed in the order of their estimated strength and may be favored with *byes* as opponents. The system of "seeded" entries is used to stack the places so as to insure that what appears to be the better entries will meet in the later rounds of the tournament. Tournaments with eight entries will "seed" at least two players and those with sixteen entries at least four players.

In a tournament of eight entries the number one seeded entry is placed in position one in the upper bracket and the number two seeded entry is placed in position eight in the lower bracket. In the case of sixteen entries seeded numbers one and three would be in the upper bracket and two and four in the lower bracket. All other positions are determined by lot.

The number of entries should not be too large. A better plan is to set up flights of eight or sixteen entries. The winner of the

TENNIS

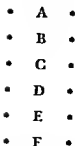


Fig. 3. Illustration of ladder tournament arrangement

4. When the challenger wins, he exchanges positions with the loser.
5. If the entry challenged does not play within a stated period of time, positions are exchanged with the entry who issued the challenge.
6. Other rules state such things as the hours in which play is to be conducted and the date on which play will cease.

This kind of play is used most frequently in connection with such activities as tennis, handball, golf, bowling, and badminton. All entries remain in the running throughout the length of the tournament, and relative ability of the players can be more nearly established. Many coaches of the single and dual type activities use this method for the purpose of determining positions on teams.

Round-Robin League Play

Round-robin league play is used when ample play areas and time are available. All entries play each other one or more times. It is generally used with team activities such as baseball, basketball, field hockey, and touch football. Leagues are generally restricted to no more than eight teams. The winner and other positions are determined on a percentage basis of wins and losses.

The percentage for a team's standing is worked out by dividing the number of games won by the number of games played. This is ordinarily expressed as a decimal of three places. For example,

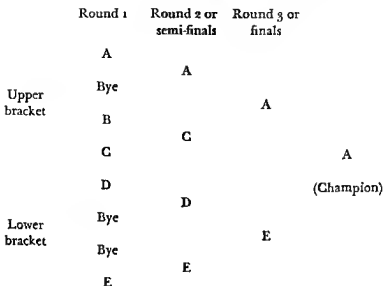


Fig. 2. Single elimination with five entries

two entries meet in the finals for the championship. This type of play determines a champion quickly, but eliminates a loser from further participation.

Ladder or Challenge Tournaments

In this type of play the entries are placed in position either according to ability or are drawn by lot. They are generally placed like rungs on a ladder on a board such as in the following illustration (Fig. 3) involving six entries A, B, C, D, E and F.

There are many variations of the basic rules of play in this type tournament, some of which are as follows:

1. An entry may challenge an entry one or two positions above him on the ladder.
2. The entry challenged must play this contest before he can challenge any entry above his position.
3. The entry in the number one position is generally not challenged more than once during a stated period of time, for example within one week.

Meets

This type of participation is used in such activities as swimming, cross country, track and field, and skiing. Results are determined usually within a day or two. The meet is organized by events which are run off at stated times according to a program worked out in advance. When there are more entries for an event than can be accommodated by the facilities available, heats, also called qualifying trials, are arranged and run off. Generally those who win first and second place in a heat qualify for the final running of the event. The "seeding" of entries is also used in the qualifying heats. The best performers are chosen as the leaders of different heats so that they will not compete in the same heat. This procedure greatly increases the possibility of having the winner of the final of an event come from among the most capable contestants.

Other Types of Participation

There are many additional ways of arranging intramural participation. Such events as play days, carnivals, and exhibitions of many kinds can be employed with good results provided they are well planned and are not used too frequently.

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if a team played nine games and won three, we obtain .333 as the decimal value of nine divided into three. If we used the percentage symbol it would be shown as 33.3%.

In drawing up a league schedule for round-robin play you should do these things:

1. Assign a number to each of the entries.
2. When there are an even number of entries, put as many numbers as there are teams in two vertical columns. Start with number one and go down the first column and up the second.
3. Each set of opposite numbers represents two teams that play each other on a certain date determined by the schedule maker.
4. To complete the required rounds of play keep number one always in the same position and rotate the other numbers in a counter-clockwise manner.

The following is an example of an eight-team round-robin schedule:

Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Round 7
1 vs. 8	1 vs. 7	1 vs. 6	1 vs. 5	1 vs. 4	1 vs. 3	1 vs. 2
2 vs. 7	8 vs. 6	7 vs. 5	6 vs. 4	5 vs. 3	4 vs. 2	3 vs. 8
3 vs. 6	2 vs. 5	8 vs. 4	7 vs. 3	6 vs. 2	5 vs. 8	4 vs. 7
4 vs. 5	3 vs. 4	2 vs. 3	8 vs. 2	7 vs. 8	6 vs. 7	5 vs. 6

When there are an odd number of entries, the foregoing plan is used except that bye is placed in the position now held by number one. Like number one, bye stays in the same position while the other numbers rotate counter-clockwise. The first three rounds for seven teams would be as follows:

Round 1	Round 2	Round 3
Bye vs. 7	Bye vs. 6	Bye vs. 5
1 vs. 6	7 vs. 5	6 vs. 4
2 vs. 5	1 vs. 4	7 vs. 3
3 vs. 4	2 vs. 3	1 vs. 2

The number of games to be played to complete a round-robin schedule can be obtained by using the formula: $[N(N-1)] \div 2$ in which the number of entries is substituted for the letter N. A seven team league would play 7×6 or 42 divided by 2, which gives us 21 games.

tennis. But keep in mind that sports dress of the time was ankle length, also that since no young lady who valued her appearance ever allowed herself to become sunburned, wide-brimmed hats were in order whenever she ventured into the sun.

The peach basket changed all this, for girls decided they wanted to try basketball and they did. Of course, it was impossible to play the game of basketball in ankle-length dresses; so middie-blouses and full-pleated bloomers were substituted. However, the long black stockings were worn for the sake of modesty. Even so this was practically a social revolution, and this costume for girls sports was not further modernized for more than twenty-five years.

As knowledge of basketball spread, inter-school, inter-college, and inter-town games began to be played by girls. Within a few years, swimming, track and field, and hockey were added to the girls sports program. Tournaments at the county, state, and even national level were held. Eventually, the competition became the win-at-all-costs type sponsored by commercial sports promoters and was entirely uncontrolled by any state or national agency.

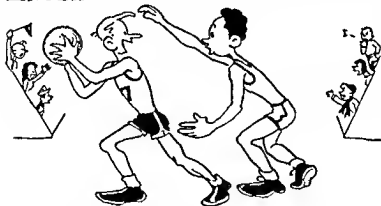
In the early twenties leaders in recreation and physical education began to express alarm at the direction that girls athletics were taking and brought about the formation of the Women's Division of the National Athletic Federation. During the next seventeen years this organization did outstanding work in promoting and maintaining high standards in athletics for girls and women.

During this period also, the National Section on Women's Athletics (now known as the Division for Girls and Women's Sports) had grown and extended its services. In 1910 the similarity of aims and overlapping membership of these two organizations girls sports continues to be carried on by the Division for girls sports continues to be carried on by the Division for Girls and Women's Sports of the American Association for Health, Physical Education, and Recreation.

DGWS STANDARDS

This group believes that in any program of sports for girls the welfare of the player is of primary importance. This principle

INTERSCHOLASTIC ATHLETICS



No other part of a school program has such a strong natural appeal as have interscholastic athletics. For this reason they can become a great asset or a great liability to a school. If they are wisely tied into the whole school program, they can vitalize every phase of school life and generate true school spirit. If they are allowed to get out of hand so that everything else is less important than a string of victories each year in football, basketball, and baseball, they can do great harm.

I. INTERSCHOLASTIC ATHLETICS FOR GIRLS

In most schools you find a pattern of interscholastic athletics for girls that is strikingly different from the pattern for boys. This is how it came about.

Have you read about the peach-basket beginning of basketball? This peach basket has especial significance for girls, for it was, figuratively speaking, the opening door for their participation in many sports.

BACK IN GRANDMA'S DAY

In the years before the beginning of basketball, girls could participate in a lady-like game of croquet, or if they wished to be a bit more vigorous, they might indulge in a dignified game of

of event is a "mixer," and during the day you will get well acquainted and have opportunity to play "with" as well as "against" girls from other schools.

Individual and dual sports, informal games, relays, and so forth are activities that can be used in a play day. Highly-organized games requiring good team work are not well suited to a play day. It is pretty difficult to play a good game of basketball with five teammates you have never seen before.

So if you want a chance to get acquainted and play with many girls from other schools or if you want to have an extramural archery meet, plan a play day.

A SPORTS DAY

In a *Sports Day*, the girls from one school play together on their team or teams. Usually several schools participate, and each school brings two or three teams.

It may be a sports day where all teams play field hockey. Or there may be several sports scheduled, and each school brings teams to participate in each of the sports on the schedule.

In any case each of the teams playing is a school team and has the opportunity to test its skill against a team from another school. In this type of event the more highly-organized team games, as well as individual and dual sports, can be used.

So, if you want a chance to match the skills of your team or school players against those of another school or several other schools, you plan a sports day.

A recent development is the co-recreation sports day. On such occasions a mixed team, boys and girls, represent their school. Activities that have been included in events of this type are tennis, badminton, golf, and volleyball.

SOCIAL EVENTS

One of the most interesting features of a sports day or play day is a social event—a lunch, an afternoon tea, or a supper—planned by the hostess school. Such an event provides an opportunity for an informal get-together by all the participants, and a chance to meet those whom you did not happen to play with.

implies medical examinations prior to participation, a healthful game environment, rules designed for girls, and games played for the good of the player rather than of the spectator.

This means, also, that the sports program must be conducted so that participation in it has educational value and that each girl who participates will be a better person because of that participation.

The DGWS slogan, "A sport for every girl and every girl in a sport," means a program of sports for girls which includes many team and individual sports so that each girl may have an opportunity to participate in several which interest her. It is important too that there be teams and games at various levels of skill—beginning, intermediate, and advanced—so that each girl may have an enjoyable and profitable experience at her level of skill.

While the DGWS is deeply concerned that each and every girl has an opportunity to participate in sports according to her needs and interests, there is also concern that a girl does not spend all her leisure time in sports. She should take full advantage of her opportunities to participate in other important school activities such as art, music, dramatics, and the homemaking arts.

AN OUTGROWTH OF THE INTRAMURAL PROGRAM

The program of interscholastic athletics for girls in most high schools today might properly be called an extramural program. For it is based on and, in fact, is an outgrowth of the intramural program. Usually at the end of a round-robin schedule in an intramural sport, teams are selected to participate in a sports day or play day with teams of nearby schools.

An important feature of a sports day or play day is that the girls of the hostess school plan it, extend the invitations, and help carry out the program of the day.

In deciding whether you want to have a play day or a sports day you should be guided by your purposes.

A PLAY DAY

In a *play day* the teams do not represent any one school. Instead they are made of players from several different schools. This type

requested by the coach, athletic director, or principal. Don't always wait until someone asks you. Volunteer to do those things that you know are needed.

Whether you are on the team or a spectator, you should always set an example of good sportsmanship. Since the entire interscholastic athletic program is conducted for the students, they should set the standards themselves. Student councils in schools can do much to encourage good sportsmanship.

Another responsibility is guarding your own safety while competing in interscholastic athletics. You alone know whether equipment fits properly so that it gives the greatest possible amount of protection. It is also your responsibility to take care of school equipment that has been issued to you and to return it after the season is over. You should be sure that all equipment is worn as directed, ankles properly wrapped as required, and that football helmets are kept clean and fit properly.

Probably the most important safety axiom to be observed by athletes is that any injury or illness, no matter how slight, should be reported to the coach at the earliest possible opportunity. Many schools have athletic injury insurance of some type, and it is valueless unless injuries are reported within a specified time.

As an athlete you have accepted the responsibility of representing your school, and your school has the right to expect the best of you. If you are not willing to keep yourself in top physical condition, you should turn in your playing equipment so that someone else who is willing, can use it.

Good physical condition is a requirement for any athletic activity for the sake of the participant. For interscholastic athletic competition *top physical condition is necessary*. About this there can be no compromise. Training rules are set up for top performance in a game, and you should observe them. Training rules will not seem like an irksome requirement if you follow the advice given in the chapter, "Keeping Fit," and in the next chapter.

FOR MORE INFORMATION

Standards in Sports for Girls and Women Division for Girls and Women's Sports, AAHPER-NEA, 1201-16th St., N.W., Washington 6, D. C.

or against, during the day. Informal chats, dancing, singing school songs, and presenting skits are activities that usually take place at this time.

II. INTERSCHOLASTIC ATHLETICS FOR BOYS

SOME VALUES OF ATHLETICS

As a student participant in athletics you will have an opportunity to learn new games and improve your playing skills if you "go out" for athletics. The development of physical vigor and desirable habits of health, sanitation, and safety will be results of athletic participation. Not least among your benefits will be the making of real friendships, both with members of your own squad and with opposing teams. Some of these friendships may be among the choicest of your lifetime.

Interscholastic athletics provide an opportunity to exemplify and observe good sportsmanship—which is good citizenship. As a student athlete you will find that such competition is a privilege that also carries definite responsibilities with it. You are representing not only yourself but your school and community as well. Athletics give you a chance to enjoy one of America's greatest heritages—the right to compete and play. As an athlete you will also learn that the violation of a rule of the game brings a penalty—and that this same sequence follows in the game of life itself.

STUDENT RESPONSIBILITIES

As a student, there are several kinds of responsibility that you should assume.

A major responsibility is the contribution you will make to the school's athletic program itself. You should realize, of course, that you will get a great deal more out of the program than you can contribute. An important job will be to keep your school work up to the level of your capacity. You need to be eligible to represent your school, but more important, you are in high school to receive a well-rounded education.

If you are on the squad, but not a regular player, you can be a real factor in the team's success by doing promptly those things

your heart, lungs, joints, and other body parts and functions are ready for it. He may want to suggest some special procedures which will help you get into condition.

PACE

Pace is the basis of endurance because it conserves energy. A jockey uses the reins to check the horse's speed in the early part of the race and the whip toward the end, when no further conservation of energy is necessary. A characteristic of the novice athlete is to start a race with a burst of great speed and then to exhaust long before the event is completed. In planning to pace yourself a good idea is to run the first part of the race with your head, and the last part with your heart.

SECOND WIND

In endurance events, two strange sensations are often experienced, "second wind" and "stitch in the side."

Second wind may occur anytime after 30 seconds to 30 minutes of activity. At first there is a feeling of tightness, a difficulty in breathing, and perhaps a feeling of being overheated. This is followed rather rapidly by a feeling of relief. Breathing becomes easier, muscles feel looser, activity becomes easier, and there is a cooling-off feeling. The reason for second wind is not well understood, but it is thought to relate to an adjustment of complex bodily processes to new demands being made on the organism.

STITCH IN THE SIDE

A stitch in the side is a sharp pain just below the ribs, usually on the right side. The stitch may occur at any time during activity. It seems to be unrelated to second wind, occurring both in the presence and in the absence of second wind. The stitch is also unexplained and is thought to be a cramp in the diaphragm. Sometimes it can be relieved by applying pressure with the fingers over the affected area. It may go away when activity is continued. It is not considered to be harmful; and if you can keep going in spite of the stitch, you should do so. It may disappear as quickly as it came.



KEEPING IN TOP CONDITION

Let your athletic coach or physical education teacher help you find the sports for which you are best suited. If you have a slow heart rate, it may indicate an exceptional ability for endurance events such as distance running or swimming. If you have a long heel bone it will be an asset in jumping. Your coach will know which of your physical characteristics are to your advantage in different sports.

CONDITIONING

After making your selection, you will again need the help of your coach or physical education teacher to lay out your practice schedules. Your coach will not advise you to engage in any strenuous sport until you are in good condition. He will help you build your condition by calisthenic exercises, drills, and work-up activities.

That is only part of it, and the rest will be largely up to you. The further factors which will affect your performance are your general health, your diet, rest, and other hygienic procedures.

Before starting training, you will need a thorough medical examination. During this examination tell your doctor what sport you plan to play. This will help him to determine whether

PART IV

Career Information

WARMING UP

Warming up before activity improves coordination and helps to prevent injury. The best warming-up exercise is performing the skills of the event—easy at first and gradually working up to competitive intensity. An adequate warm-up will take from thirty minutes to an hour, depending upon the strenuousness of the activity.

REST

You will need to plan periods of rest along with periods of work in your training schedule. Your activity should be broken by rest periods—how often and how long depending on the strenuousness of the work. Under most conditions of sport, a rest period does not need to exceed five minutes. Most of the recovery from even violent exertion is completed within that time. Also, after five minutes, the beneficial effects of warming up begin to wear off.

INJURIES

If you receive an injury in a game, notify the coach at once. Let him decide whether or not you should stay in the game. If your injury puts you out of competition, you will return much sooner if treatment is started early and if you carry out the doctor's orders.

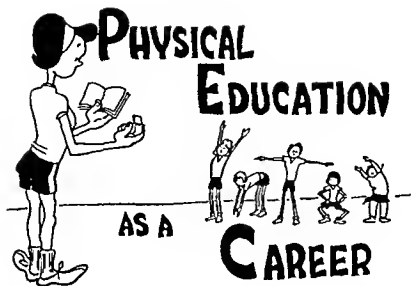
There is a thrill in making the best use of your body and trying for maximum performance. In sports you will start habits of keeping in good condition and habits of getting the most out of life. The practice of sport can be the practice of life at its best.

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Perhaps you have only thought of your physical education class as a place where you have fun, where you can let off steam, or where you learn interesting new games and plan exciting activities. But if this is the way you think of your physical education class, it may be because of a deeper reason than you have ever stopped to consider. Perhaps you are the very person who would like physical education as a career.

How Does High School Prepare You?

Physical education classes and the sports program will naturally be most interesting to you, but the main job is to get a good background in the fundamental courses in English, social studies, and science. You should also explore other interests through electives.

Getting ready for college then means taking those courses that will give you a good basic training for more advanced work. Participation in a variety of school activities also is important to show that you are trying to develop interests other than in the field of sports. It means that you have taken advantage of opportunities to go to camp, perhaps even gaining a position of junior counselor; or you have worked on the city playground in the



The physical educator teaches the activities that help young people build healthy bodies and lay the foundation for emotional balance and good social adjustment.

The rapid expansion in elementary and secondary education assures job opportunities and good salaries.

Opportunities in the related field of recreation are also increasing.



Courtesy, John Marshall High School, Rochester, N. Y.

There are approximately 630 colleges and universities in all parts of the country engaged in educating teachers of physical education. Some are more limited in their course offerings than others because of the size of their faculties and extent of facilities.

In general, the teacher education program in physical education devotes about one-half the total curriculum to general courses, such as English, social studies, and sciences, and one-half to professional education. The latter includes sports skills, dance, gymnastics, swimming, life saving, and so forth. Some of the theory or "know how" courses are methods of conditioning, personal and community health, care of injuries, anatomy, physiology and physiology of exercise, mechanical and muscular analysis of physical skills, administration of physical education programs, testing, and practice teaching.

WHAT ARE THE EMPLOYMENT OPPORTUNITIES?

What types of positions are available for men and women prepared in physical education? Such a college graduate is usually prepared to assume a wide variety of responsibilities in the teaching field. This includes coaching, recreational leadership, camp counseling, as well as various types of teaching positions in schools and colleges.

The opportunities for both men and women in the elementary schools are increasing rapidly.

Employment opportunities are also found in organizations, such as the YMCA, YMHA, YWCA, YWHA, Boys' Clubs, Scouts, Campfire Girls, and church recreation programs. These may be permanent year-round positions or summer jobs in the camping program sponsored by these organizations. Camp counseling is another area which may provide a different type of experience as well as supplementary income. Such interest might even lead to directorship or ownership of one's own camp. The customary long summer vacations of teachers make such work quite possible.

As the man or woman advances professionally and gains varied experience, administrative, supervisory, and teacher-education positions on the college level become available. For positions of

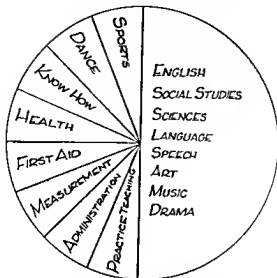


Fig. 1. College Course of Study

summer; or you've taken the neighbor's children under your wing and taught them to play a new game. Through your leader's club or scout troop, you discovered that it was fun to teach others how to do things.

How Do You Choose Your College?

Choice of your college should be made most carefully. The factors of size, location, and the type of institution are not so important as the quality of instruction, the opportunities for guidance, and interest in the development of the student. It is essential, too, that the state teacher education requirements are met by the course of study in physical education.

Boys with exceptional athletic ability who want to compete in the varsity program should seek an institution where athletics are conducted for the good of the students. Participation in such a program offers many advantages which are not available anywhere else. However, coaching is considered to be only one phase of teaching physical education. It is important to realize that varsity competition alone does not qualify you for a teaching career.

RECREATION AS A CAREER



As you begin thinking seriously about your choice of career during your high school years, you should attempt to find out whether you possess interests and abilities which would help you succeed in a career in recreation.

What are some of these interests and abilities? The National Recreation Association has listed five important ones.

- (1) Do you like to do things to help other people?
- (2) Do you have strong leadership qualities and enjoy working with people?
- (3) Does your personality attract others and are you skillful in getting along with various types of people?
- (4) Do you have a sense of humor, enthusiasm, and a concern for the development of people?
- (5) Do you have imagination and creative power?

WHAT HIGH SCHOOL ACTIVITIES ARE IMPORTANT?

You can begin your preparation for a recreation career while in high school. Since you will need to enter college to get special training in recreation, it is very important that you choose the

this type, it is necessary in most cases to have wide experience and a doctor's degree or its equivalent.

Thus, opportunities are many and varied for well-qualified young men and women. With the school enrollments rapidly expanding in the next few years, properly prepared people will be increasingly needed.

WHAT SALARIES CAN YOU EXPECT?

Salaries for school personnel are gradually rising and those for positions in organizations such as the Scouts and Y's are comparable. The National Education Association is advocating a minimum salary of \$3,200 for all public school teachers and a maximum of \$8,000. Top salaries for administrative positions are, of course, much higher than this.

Other financial rewards of teaching should be considered. These include provisions for permanent appointment, pensions and retirement, sick leave, leave with pay after several years of service, and long vacations.

WHAT REWARDS COME TO A TEACHER?

It is important for the career-seeker in physical education to recognize values derived from working with people, as a large part of the satisfactions gained. In this field, there is creative work to be done. The fun and enjoyment boys and girls have in a good program of physical education is very real to them. It will be real to you, too, because you will have had a part in helping youngsters to grow.

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practical experience to your credit by the time you earn your bachelor's degree.

HOW SHOULD YOU SELECT YOUR COLLEGE?

You can't get major work in recreation at every college. However, the number of colleges offering a major in recreation has increased from thirty-five in 1948 to approximately sixty in 1954.

Your high school counselor can help you get information about the different colleges. If possible, you should also consult your state director of health, physical education, and recreation.

It is well to consider several schools. First, be sure that the colleges you are considering are members of one of the regional accrediting associations for general education. Then send for their catalogues and examine their recreation offerings closely. If possible, pay them a visit during Career Day. Then if you are still undecided, you should ask the opinions of recreation executives who are outstanding leaders in the field.

WHAT IS THE DEMAND FOR RECREATION LEADERS?

There is a serious shortage of qualified recreation leaders. In 1954 our colleges graduated only 600 men and women with majors in recreation. And the minimum number of full-time positions to be filled in this same year was estimated at 3,000. This means that the recreation profession had to recruit either about 2,400 people from other professions or accept completely untrained people to fill a high percentage of the full-time openings.

The demand for men and women professionally qualified in recreation will continue to exceed the supply for the next several years. Thus your chances of obtaining a good position after completing your professional preparation are excellent.

WHAT TYPES OF POSITIONS ARE AVAILABLE?

A great variety of positions are open to men and women who have completed their college degrees in recreation. These opportunities are found in public recreation agencies, voluntary and youth-serving agencies, business and industrial firms, hospitals and other institutions, state and federal agencies, colleges and universities, the armed forces, resorts and other commercial recreation enterprises, labor unions, churches, and camps.

college-preparatory course offered by your high school. Subjects such as English, public speaking, art, physical education, music, and vocational arts will be especially helpful. Other courses that will provide leadership and planning experiences or will improve your ability to speak, write, or understand people will also be valuable.

You should participate in a variety of extra-class activities. While taking part in such activities as debating, sports, dramatics, music, hobby groups, and editing school publications, you will be developing poise, social intelligence, and special skills.

You should explore the possibilities of working for pay or as a volunteer during the vacation months on playgrounds, in the recreation program of some local community agency, or in a summer camp. This experience will give you valuable opportunities to test and strengthen your leadership ability. It will also give you a more realistic view of your anticipated profession.

WHAT COLLEGE COURSES SHOULD YOU TAKE?

The standards that have been adopted by the recreation profession make college graduation a requirement for most recreation positions. Recreation agencies generally prefer a person with a college background of broad, liberal, cultural courses with a major in recreation.

In a good college or university program in recreation, your study will include courses in general education, recreation skills, recreation theory, and supervised field experience. Your first two years will be spent largely in courses which will give you a broad background in general education. Your last two years will consist primarily of specialized courses in recreation.

Supervised field experience in recreation will be an essential part of your college preparation. The college or university will assign you to various recreation agencies for practical field work. This practice leadership will be supervised by a member of the college faculty and a staff member of the particular agency. Thus you will be learning by doing as you study the philosophy, planning, and organization of recreation. And you will also have some

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WHAT SALARY CAN YOU EXPECT?

Within the past few years, the salaries of professional recreation leaders have been raised to the extent that they now compare favorably with those of many other professional workers. A recent survey of salaries paid by local governmental agencies indicates that recreation executives carrying top administrative responsibility may receive from \$3,500 to \$15,000 annually, depending upon the size and type of agency. The salaries of general supervisors and supervisors of special activities range from \$2,800 to \$7,000. The pay of directors of individual centers who are responsible for facilities, staff, and program range from \$2,600 to \$6,500. And recreation leaders are paid \$2,400 to \$5,000.

A recent study has also been made of the salaries of men and women employed as recreation directors in business and industrial firms. These salaries ranged from \$3,600 to \$10,500. The average salary indicated by the study was \$6,600.

WHAT OTHER REWARDS WILL YOU RECEIVE?

The greatest reward any profession can offer is that deep sense of satisfaction which comes only when you feel that you are performing an important service for others. A professional career in recreation offers you this reward. In his daily responsibilities, the professional recreation leader works with people in a variety of interesting activities. It would be difficult, if not impossible, to find a profession which is more fun and which can offer greater satisfaction to the young person who seeks for his life's work a career of service to others.

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